

```
In [1]: # import os  
# os.environ["PYTORCH_CUDA_ALLOC_CONF"] = "expandable_segments:True"
```

```
In [1]: import os  
import torch  
import numpy as np  
import matplotlib.pyplot as plt  
import nibabel as nib  
import glob  
  
# MONAI Imports  
import monai  
from monai.transforms import (  
    Compose, LoadImaged, ConvertToMultiChannelBasedOnBratsClassesd,  
    CropForegroundd, RandSpatialCropd, RandFlipd,  
    NormalizeIntensityd, RandScaleIntensityd, RandShiftIntensityd,  
    Activations, AsDiscrete  
)  
from monai.data import Dataset, DataLoader, decollate_batch  
from monai.networks.nets import SwinUNETR  
from monai.losses import DiceLoss  
from monai.inferers import sliding_window_inference  
from monai.metrics import DiceMetric  
from monai.utils import MetricReduction  
from functools import partial  
import time
```

```
2025-04-04 07:28:43.852477: I tensorflow/tsl/cuda/cudart_stub.cc:28] Could not find c  
uda drivers on your machine, GPU will not be used.  
2025-04-04 07:28:43.913275: I tensorflow/core/platform/cpu_feature_guard.cc:182] This  
TensorFlow binary is optimized to use available CPU instructions in performance-criti  
cal operations.  
To enable the following instructions: AVX2 FMA, in other operations, rebuild TensorF  
low with the appropriate compiler flags.  
2025-04-04 07:28:47.545747: W tensorflow/compiler/tf2tensorrt/utils/py_utils.cc:38] T  
F-TRT Warning: Could not find TensorRT
```

```
In [2]: # Set up environment  
def setup_environment():  
    """  
        Setup training environment and print system information  
    """  
    # Set random seeds for reproducibility  
    torch.manual_seed(42)  
    np.random.seed(42)  
  
    # Check and print device information  
    device = torch.device("cuda" if torch.cuda.is_available() else "cpu")  
    print(f"Device: {device}")  
  
    return device
```

```
In [3]: # Data Loading Function  
def get_brats_files(data_dir):  
    """  
        Scan the data directory and collect BraTS image files.  
    """
```

```

train_data = []
cases = sorted(glob.glob(os.path.join(data_dir, "BraTS-PED-*-000")))

for case in cases:
    case_basename = os.path.basename(case)

    image_paths = [
        os.path.join(case, f"{case_basename}-t1c.nii.gz"), # T1 contrast
        os.path.join(case, f"{case_basename}-t1n.nii.gz"), # T1 non-contrast
        os.path.join(case, f"{case_basename}-t2f.nii.gz"), # T2 FLAIR
        os.path.join(case, f"{case_basename}-t2w.nii.gz") # T2 weighted
    ]

    label_path = os.path.join(case, f"{case_basename}-seg.nii.gz")

    if all(os.path.exists(path) for path in image_paths + [label_path]):
        train_data.append({
            "image": image_paths,
            "label": label_path
        })

print(f"Total cases found: {len(train_data)}")
return train_data

```

```

In [4]: # Model Initialization Function
def initialize_model(device, roi=(128, 128, 128)):
    """
    Initialize SwinUNETR model for BraTS PEDs segmentation task
    """
    model = SwinUNETR(
        img_size=roi,
        in_channels=4, # 4 input modalities
        out_channels=3,
        feature_size=48,
        drop_rate=0.0,
        attn_drop_rate=0.0,
        dropout_path_rate=0.0,
        use_checkpoint=True,
    ).to(device)

    print("Model Initialized:")
    print(f" Input size: {roi}")
    print(f" Input channels: 4")
    print(f" Output classes: 3")

    return model

```

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In [5]: # Training Components Setup
def setup_training_components(model, roi, sw_batch_size, max_epochs, device):
    """
    Setup training components for BraTS segmentation task
    """

    # Enable cuDNN benchmark mode
    torch.backends.cudnn.benchmark = True

    # Loss and Metrics
    dice_loss = DiceLoss(to_onehot_y=False, sigmoid=True)
    dice_acc = DiceMetric(
        include_background=True,

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        reduction=MetricReduction.MEAN_BATCH,
        get_not_nans=True
    )

    # Model Inference
    model_inferer = partial(
        sliding_window_inference,
        roi_size=roi,
        sw_batch_size=sw_batch_size,
        predictor=model,
        overlap=0.7,
    )

    # Optimizer and Scheduler
    optimizer = torch.optim.AdamW(
        model.parameters(),
        lr=0.0008,
        weight_decay=1e-5
    )
    scheduler = torch.optim.lr_scheduler.CosineAnnealingLR(
        optimizer,
        T_max=max_epochs
    )

    return {
        'dice_loss': dice_loss,
        'dice_acc': dice_acc,
        'model_inferer': model_inferer,
        'optimizer': optimizer,
        'scheduler': scheduler
    }
}

```

In [6]:

```

# Data Transforms
def get_transforms(roi=(128, 128, 128)):
    """
    Create training and validation transforms
    """

    train_transform = Compose([
        LoadImaged(keys=["image", "label"]),
        ConvertToMultiChannelBasedOnBratsClassesd(keys="label"),
        CropForegroundd(
            keys=["image", "label"],
            source_key="image",
            k_divisible=roi
        ),
        RandSpatialCropd(
            keys=["image", "label"],
            roi_size=roi,
            random_size=False
        ),
        RandFlipd(keys=["image", "label"], prob=0.5, spatial_axis=0),
        RandFlipd(keys=["image", "label"], prob=0.5, spatial_axis=1),
        RandFlipd(keys=["image", "label"], prob=0.5, spatial_axis=2),
        NormalizeIntensityd(keys="image", nonzero=True, channel_wise=True),
        RandScaleIntensityd(keys="image", factors=0.1, prob=1.0, channel_wise=True),
        RandShiftIntensityd(keys="image", offsets=0.1, prob=1.0, channel_wise=True),
    ])

    val_transform = Compose([

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        LoadImaged(keys=["image", "label"]),
        ConvertToMultiChannelBasedOnBratsClassesd(keys="label"),
        NormalizeIntensityd(keys="image", nonzero=True, channel_wise=True),
    ])

    return train_transform, val_transform

```

In [7]: # Environment Setup  
device = setup\_environment()

Device: cuda

In [8]:

```

class AverageMeter:
    """Computes and stores the average and current value"""
    def __init__(self):
        self.reset()

    def reset(self):
        self.val = 0
        self.avg = 0
        self.sum = 0
        self.count = 0

    def update(self, val, n=1):
        self.val = val
        self.sum += val * n
        self.count += n
        self.avg = self.sum / self.count

```

In [9]:

```

def train_epoch(model, loader, optimizer, dice_loss, epoch, max_epochs, device):
    """
    Training epoch function with improved logging and error handling
    """

    Args:
        model (torch.nn.Module): Model to train
        loader (DataLoader): Training data loader
        optimizer (torch.optim.Optimizer): Optimizer
        dice_loss (torch.nn.Module): Dice loss function
        epoch (int): Current epoch number
        max_epochs (int): Total number of epochs
        device (torch.device): Training device

    Returns:
        float: Average loss for the epoch
    """
    model.train()
    start_time = time.time()
    run_loss = AverageMeter()

    # Post-processing transforms
    post_sigmoid = Activations(sigmoid=True)
    post_pred = AsDiscrete(threshold=0.5)

    try:
        for idx, batch_data in enumerate(loader):
            optimizer.zero_grad() # Zero gradients before each batch

            data = batch_data["image"].to(device)
            target = batch_data["label"].to(device)

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# Forward pass
logits = model(data)
loss = dice_loss(logits, target)

# Backward pass and optimization
loss.backward()
optimizer.step()

# Update Loss tracking
run_loss.update(loss.item(), n=data.size(0))

# Logging
print(
    f"Train Epoch [{epoch}/{max_epochs}] [{idx}/{len(loader)}]",
    f"Loss: {run_loss.avg:.4f}",
    f"Time: {time.time() - start_time:.2f}s"
)

start_time = time.time()

except Exception as e:
    print(f"Error during training epoch {epoch}: {e}")
    raise

return run_loss.avg

```

In [10]:

```

def val_epoch(model, loader, dice_acc, model_inferer, epoch, max_epochs, device):
    """
    Validation epoch function with detailed metrics tracking

    Args:
        model (torch.nn.Module): Model to validate
        loader (DataLoader): Validation data loader
        dice_acc (DiceMetric): Dice accuracy metric
        model_inferer (callable): Sliding window inference function
        epoch (int): Current epoch number
        max_epochs (int): Total number of epochs
        device (torch.device): Validation device

    Returns:
        numpy.ndarray: Average Dice scores
    """
    model.eval()
    start_time = time.time()

    # Post-processing transforms
    post_sigmoid = Activations(sigmoid=True)
    post_pred = AsDiscrete(threshold=0.5)

    with torch.no_grad():
        try:
            for idx, batch_data in enumerate(loader):
                data = batch_data["image"].to(device)
                target = batch_data["label"].to(device)

                # Inference
                logits = model_inferer(data)

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# Decollate and post-process
val_labels_list = decollate_batch(target)
val_outputs_list = decollate_batch(logits)

val_output_convert = [
    post_pred(post_sigmoid(val_pred_tensor))
    for val_pred_tensor in val_outputs_list
]

# Reset and compute metrics
dice_acc.reset()
dice_acc(y_pred=val_output_convert, y=val_labels_list)
dice_metric, not_nans = dice_acc.aggregate()

# Assuming 3 classes: TC (Tumor Core), WT (Whole Tumor), ET (Enhancing
dice_tc, dice_wt, dice_et = dice_metric.cpu().numpy()

# Logging
print(
    f"Val Epoch [{epoch}/{max_epochs}] [{idx}/{len(loader)}]",
    f"Dice TC: {dice_tc:.4f}",
    f"Dice WT: {dice_wt:.4f}",
    f"Dice ET: {dice_et:.4f}",
    f"Time: {time.time() - start_time:.2f}s"
)
start_time = time.time()

except Exception as e:
    print(f"Error during validation epoch {epoch}: {e}")
    raise

return dice_metric.cpu().numpy()

```

In [11]:

```

def trainer(
    model,
    train_loader,
    val_loader,
    optimizer,
    loss_func,
    acc_func,
    scheduler,
    max_epochs,
    val_every=10,
    model_inferer=None,
    start_epoch=0,
    post_sigmoid=None,
    post_pred=None,
    checkpoint_dir='./checkpoints'
):
    """
    Training loop for brain tumor segmentation model

```

Args:

`model (torch.nn.Module): Segmentation model`  
`train_loader (DataLoader): Training data loader`  
`val_loader (DataLoader): Validation data loader`  
`optimizer (torch.optim.Optimizer): Model optimizer`  
`loss_func (callable): Loss function`

```

    acc_func (callable): Accuracy metric function
    scheduler (torch.optim.lr_scheduler): Learning rate scheduler
    max_epochs (int): Total number of training epochs
    val_every (int, optional): Validation frequency. Defaults to 1.
    model_inferer (callable, optional): Model inference function
    start_epoch (int, optional): Epoch to start from. Defaults to 0.
    post_sigmoid (callable, optional): Post-processing sigmoid transform
    post_pred (callable, optional): Post-processing prediction transform
    checkpoint_dir (str, optional): Directory to save checkpoints

    Returns:
        tuple: Training metrics and results
    """
    # Ensure checkpoint directory exists
    os.makedirs(checkpoint_dir, exist_ok=True)

    # Tracking metrics
    val_acc_max = 0.0
    dices_tc, dices_wt, dices_et = [], [], []
    dices_avg = []
    loss_epochs = []
    trains_epoch = []

    try:
        for epoch in range(start_epoch, max_epochs):
            # Print current time and epoch
            print(time.ctime(), "Epoch:", epoch)
            epoch_time = time.time()

            # Training epoch
            train_loss = train_epoch(
                model=model,
                loader=train_loader,
                optimizer=optimizer,
                dice_loss=dice_loss,
                epoch=epoch,
                max_epochs=max_epochs, # Add this line
                device=next(model.parameters()).device # Add this line
            )

            # Training epoch summary
            print(
                f"Final training {epoch}/{max_epochs - 1}",
                f"loss: {train_loss:.4f}",
                f"time {time.time() - epoch_time:.2f}s",
            )

            # Validation phase
            if (epoch + 1) % val_every == 0 or epoch == 0:
                # Track training metrics
                loss_epochs.append(train_loss)
                trains_epoch.append(int(epoch))

                # Validation time tracking
                epoch_time = time.time()

                # Run validation
                val_acc = val_epoch(
                    model,
                    val_loader,
                )

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        epoch=epoch,
        dice_acc=acc_func,
        model_inferer=model_inferer,
        max_epochs=max_epochs,
        device=next(model.parameters()).device
    )

    # Extract validation metrics
    dice_tc = val_acc[0]
    dice_wt = val_acc[1]
    dice_et = val_acc[2]
    val_avg_acc = np.mean(val_acc)

    # Validation summary
    print(
        f"Final validation stats {epoch}/{max_epochs - 1}",
        f", dice_tc: {dice_tc}",
        f", dice_wt: {dice_wt}",
        f", dice_et: {dice_et}",
        f", Dice_Avg: {val_avg_acc}",
        f", time {time.time() - epoch_time:.2f}s",
    )

    # Track metrics
    dices_tc.append(dice_tc)
    dices_wt.append(dice_wt)
    dices_et.append(dice_et)
    dices_avg.append(val_avg_acc)

    # Model checkpointing
    if val_avg_acc > val_acc_max:
        print(
            f"New best model: {val_acc_max:.6f} --> {val_avg_acc:.6f}"
        )
        val_acc_max = val_avg_acc

    # Save best model checkpoint
    save_checkpoint(
        model,
        epoch,
        best_acc=val_acc_max,
        checkpoint_dir=checkpoint_dir
    )

    # Step Learning rate scheduler
    scheduler.step()

except Exception as e:
    print(f"Training interrupted: {e}")
    raise

# Final training summary
print(f"Training Finished! Best Accuracy: {val_acc_max}")

return (
    val_acc_max,
    dices_tc,
    dices_wt,
    dices_et,
    dices_avg,
)
```

```
        loss_epochs,
        trains_epoch,
    )
```

```
In [12]: def save_checkpoint(
    model,
    epoch,
    best_acc,
    checkpoint_dir='./checkpoints',
    filename='best_model.pth'
):
    """
    Save model checkpoint

    Args:
        model (torch.nn.Module): Model to save
        epoch (int): Current epoch
        best_acc (float): Best validation accuracy
        checkpoint_dir (str, optional): Directory to save checkpoint
        filename (str, optional): Filename for checkpoint
    """
    # Create checkpoint directory if it doesn't exist
    os.makedirs(checkpoint_dir, exist_ok=True)

    # Full path for checkpoint
    checkpoint_path = os.path.join(checkpoint_dir, filename)

    # Save checkpoint
    torch.save({
        'epoch': epoch,
        'model_state_dict': model.state_dict(),
        'best_acc': best_acc
    }, checkpoint_path)

    print(f"Checkpoint saved: {checkpoint_path}")
```

```
In [13]: # Training Execution Preparation
# Define post-processing transforms
post_sigmoid = Activations(sigmoid=True)
post_pred = AsDiscrete(threshold=0.5)

# Set initial start epoch
start_epoch = 0

# Ensure all required variables are defined from previous setup
DATA_DIR = r"BraTS-PEDs2024_Subset"
ROI = (128, 128, 128)
BATCH_SIZE = 1
SW_BATCH_SIZE = 2
MAX_EPOCHS = 100
FOLD = 1

# Recreate data loaders and other components
data_files = get_brats_files(DATA_DIR)
train_transform, val_transform = get_transforms(ROI)

# Create datasets and Loaders
train_files = data_files[:int(0.8 * len(data_files))]
val_files = data_files[int(0.8 * len(data_files)):]
```

```

train_ds = Dataset(data=train_files, transform=train_transform)
train_loader = DataLoader(
    train_ds,
    batch_size=BATCH_SIZE,
    shuffle=True,
    num_workers=4,
    pin_memory=True,
)

val_ds = Dataset(data=val_files, transform=val_transform)
val_loader = DataLoader(
    val_ds,
    batch_size=1,
    shuffle=False,
    num_workers=4,
    pin_memory=True,
)

# Reinitialize model, optimizer, etc.
device = torch.device("cuda" if torch.cuda.is_available() else "cpu")
model = initialize_model(device, roi=ROI)

# Setup training components
training_components = setup_training_components(
    model, ROI, SW_BATCH_SIZE, MAX_EPOCHS, device
)

# Unpack training components
dice_loss = training_components['dice_loss']
dice_acc = training_components['dice_acc']
model_inferer = training_components['model_inferer']
optimizer = training_components['optimizer']
scheduler = training_components['scheduler']

# Main Training Execution
try:
    # Run trainer and unpack results
    (
        val_acc_max,
        dices_tc,
        dices_wt,
        dices_et,
        dices_avg,
        loss_epochs,
        trains_epoch,
    ) = trainer(
        model=model,
        train_loader=train_loader,
        val_loader=val_loader,
        optimizer=optimizer,
        loss_func=dice_loss,
        acc_func=dice_acc,
        scheduler=scheduler,
        max_epochs=MAX_EPOCHS,
        model_inferer=model_inferer,
        start_epoch=start_epoch,
        post_sigmoid=post_sigmoid,
        post_pred=post_pred,
    )

```

```
#     Print final results
    print(f"Training completed, best average Dice score: {val_acc_max:.4f}")

except Exception as e:
    print(f"Training failed with error: {e}")
```

Total cases found: 26

```
/home/u2/avikalsingh/.local/lib/python3.8/site-packages/monai/utils/deprecate_utils.py:321: FutureWarning: monai.transforms.croppad.dictionary CropForegroundd.__init__:allow_smaller: Current default value of argument `allow_smaller=True` has been deprecated since version 1.2. It will be changed to `allow_smaller=False` in version 1.5.
    warn_deprecated(argname, msg, warning_category)
/home/u2/avikalsingh/.local/lib/python3.8/site-packages/monai/utils/deprecate_utils.py:221: FutureWarning: monai.networks.nets.swin_unetr SwinUNETR.__init__:img_size: Argument `img_size` has been deprecated since version 1.3. It will be removed in version 1.5. The img_size argument is not required anymore and checks on the input size are run during forward().
    warn_deprecated(argname, msg, warning_category)
```

Model Initialized:

```
Input size: (128, 128, 128)
Input channels: 4
Output classes: 3
```

Fri Apr 4 07:28:53 2025 Epoch: 0

```
/home/u2/avikalsingh/.local/lib/python3.8/site-packages/torch/utils/checkpoint.py:139
9: FutureWarning: `torch.cpu.amp.autocast(args...)` is deprecated. Please use `torch.amp.autocast('cpu', args...)` instead.
    with device_autocast_ctx, torch.cpu.amp.autocast(**cpu_autocast_kwargs), recompute_
context: # type: ignore[attr-defined]
```

```
Train Epoch [0/100] [0/20] Loss: 0.9684 Time: 161.26s
Train Epoch [0/100] [1/20] Loss: 0.9842 Time: 1.76s
Train Epoch [0/100] [2/20] Loss: 0.9746 Time: 1.75s
Train Epoch [0/100] [3/20] Loss: 0.9786 Time: 1.75s
Train Epoch [0/100] [4/20] Loss: 0.9820 Time: 1.75s
Train Epoch [0/100] [5/20] Loss: 0.9822 Time: 1.75s
Train Epoch [0/100] [6/20] Loss: 0.9597 Time: 1.76s
Train Epoch [0/100] [7/20] Loss: 0.9613 Time: 1.75s
Train Epoch [0/100] [8/20] Loss: 0.9597 Time: 1.76s
Train Epoch [0/100] [9/20] Loss: 0.9527 Time: 1.75s
Train Epoch [0/100] [10/20] Loss: 0.9561 Time: 1.75s
Train Epoch [0/100] [11/20] Loss: 0.9597 Time: 1.75s
Train Epoch [0/100] [12/20] Loss: 0.9618 Time: 1.75s
Train Epoch [0/100] [13/20] Loss: 0.9631 Time: 1.99s
Train Epoch [0/100] [14/20] Loss: 0.9577 Time: 1.76s
Train Epoch [0/100] [15/20] Loss: 0.9528 Time: 1.75s
Train Epoch [0/100] [16/20] Loss: 0.9412 Time: 1.76s
Train Epoch [0/100] [17/20] Loss: 0.9436 Time: 1.75s
Train Epoch [0/100] [18/20] Loss: 0.9422 Time: 1.75s
Train Epoch [0/100] [19/20] Loss: 0.9449 Time: 1.75s
Final training 0/99 loss: 0.9449 time 194.88s
Val Epoch [0/100] [0/6] Dice TC: 0.0041 Dice WT: 0.0448 Dice ET: 0.0000 Time: 87.38s
Val Epoch [0/100] [1/6] Dice TC: 0.0000 Dice WT: 0.0860 Dice ET: 0.0000 Time: 14.70s
Val Epoch [0/100] [2/6] Dice TC: 0.0229 Dice WT: 0.0333 Dice ET: 0.0000 Time: 14.70s
Val Epoch [0/100] [3/6] Dice TC: 0.0025 Dice WT: 0.0461 Dice ET: 0.0000 Time: 14.70s
Val Epoch [0/100] [4/6] Dice TC: 0.1113 Dice WT: 0.1216 Dice ET: 0.0233 Time: 14.69s
Val Epoch [0/100] [5/6] Dice TC: 0.0065 Dice WT: 0.0160 Dice ET: 0.0000 Time: 14.70s
Final validation stats 0/99 , dice_tc: 0.006490548141300678 , dice_wt: 0.016023591160
77423 , dice_et: 0.0 , Dice_Avg: 0.007504712790250778 , time 160.91s
New best model: 0.000000 --> 0.007505
Checkpoint saved: ./checkpoints/best_model.pth
Fri Apr  4 07:34:50 2025 Epoch: 1
Train Epoch [1/100] [0/20] Loss: 0.9675 Time: 4.63s
Train Epoch [1/100] [1/20] Loss: 0.9597 Time: 1.76s
Train Epoch [1/100] [2/20] Loss: 0.9645 Time: 1.76s
Train Epoch [1/100] [3/20] Loss: 0.9615 Time: 1.76s
Train Epoch [1/100] [4/20] Loss: 0.9636 Time: 1.75s
Train Epoch [1/100] [5/20] Loss: 0.9560 Time: 1.75s
Train Epoch [1/100] [6/20] Loss: 0.9520 Time: 1.76s
Train Epoch [1/100] [7/20] Loss: 0.9541 Time: 1.76s
Train Epoch [1/100] [8/20] Loss: 0.9486 Time: 1.76s
Train Epoch [1/100] [9/20] Loss: 0.9457 Time: 1.76s
Train Epoch [1/100] [10/20] Loss: 0.9504 Time: 1.75s
Train Epoch [1/100] [11/20] Loss: 0.9546 Time: 1.75s
Train Epoch [1/100] [12/20] Loss: 0.9564 Time: 1.76s
Train Epoch [1/100] [13/20] Loss: 0.9554 Time: 1.76s
Train Epoch [1/100] [14/20] Loss: 0.9583 Time: 1.76s
Train Epoch [1/100] [15/20] Loss: 0.9576 Time: 1.75s
Train Epoch [1/100] [16/20] Loss: 0.9519 Time: 1.76s
Train Epoch [1/100] [17/20] Loss: 0.9475 Time: 1.76s
Train Epoch [1/100] [18/20] Loss: 0.9447 Time: 1.75s
Train Epoch [1/100] [19/20] Loss: 0.9475 Time: 1.75s
Final training 1/99 loss: 0.9475 time 38.04s
Fri Apr  4 07:35:28 2025 Epoch: 2
Train Epoch [2/100] [0/20] Loss: 0.9126 Time: 4.84s
Train Epoch [2/100] [1/20] Loss: 0.9278 Time: 1.76s
Train Epoch [2/100] [2/20] Loss: 0.9257 Time: 1.76s
Train Epoch [2/100] [3/20] Loss: 0.9242 Time: 1.76s
Train Epoch [2/100] [4/20] Loss: 0.9304 Time: 1.75s
Train Epoch [2/100] [5/20] Loss: 0.9408 Time: 1.76s
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Train Epoch [2/100] [6/20] Loss: 0.9463 Time: 1.76s  
Train Epoch [2/100] [7/20] Loss: 0.9303 Time: 1.75s  
Train Epoch [2/100] [8/20] Loss: 0.9308 Time: 1.76s  
Train Epoch [2/100] [9/20] Loss: 0.9347 Time: 1.76s  
Train Epoch [2/100] [10/20] Loss: 0.9363 Time: 1.76s  
Train Epoch [2/100] [11/20] Loss: 0.9354 Time: 1.76s  
Train Epoch [2/100] [12/20] Loss: 0.9395 Time: 1.76s  
Train Epoch [2/100] [13/20] Loss: 0.9222 Time: 1.75s  
Train Epoch [2/100] [14/20] Loss: 0.9183 Time: 1.76s  
Train Epoch [2/100] [15/20] Loss: 0.9182 Time: 1.75s  
Train Epoch [2/100] [16/20] Loss: 0.9194 Time: 1.76s  
Train Epoch [2/100] [17/20] Loss: 0.9203 Time: 1.75s  
Train Epoch [2/100] [18/20] Loss: 0.9162 Time: 1.75s  
Train Epoch [2/100] [19/20] Loss: 0.9198 Time: 1.75s  
Final training 2/99 loss: 0.9198 time 38.27s  
Fri Apr 4 07:36:06 2025 Epoch: 3  
Train Epoch [3/100] [0/20] Loss: 0.9714 Time: 4.76s  
Train Epoch [3/100] [1/20] Loss: 0.9662 Time: 1.78s  
Train Epoch [3/100] [2/20] Loss: 0.9136 Time: 1.78s  
Train Epoch [3/100] [3/20] Loss: 0.9236 Time: 1.76s  
Train Epoch [3/100] [4/20] Loss: 0.9375 Time: 1.75s  
Train Epoch [3/100] [5/20] Loss: 0.9240 Time: 1.76s  
Train Epoch [3/100] [6/20] Loss: 0.9282 Time: 1.76s  
Train Epoch [3/100] [7/20] Loss: 0.9236 Time: 1.76s  
Train Epoch [3/100] [8/20] Loss: 0.9313 Time: 1.76s  
Train Epoch [3/100] [9/20] Loss: 0.9241 Time: 1.75s  
Train Epoch [3/100] [10/20] Loss: 0.9273 Time: 1.75s  
Train Epoch [3/100] [11/20] Loss: 0.9292 Time: 1.76s  
Train Epoch [3/100] [12/20] Loss: 0.9095 Time: 1.76s  
Train Epoch [3/100] [13/20] Loss: 0.9092 Time: 1.76s  
Train Epoch [3/100] [14/20] Loss: 0.9069 Time: 1.76s  
Train Epoch [3/100] [15/20] Loss: 0.8895 Time: 1.76s  
Train Epoch [3/100] [16/20] Loss: 0.8958 Time: 1.76s  
Train Epoch [3/100] [17/20] Loss: 0.9016 Time: 1.76s  
Train Epoch [3/100] [18/20] Loss: 0.9054 Time: 1.75s  
Train Epoch [3/100] [19/20] Loss: 0.9082 Time: 1.76s  
Final training 3/99 loss: 0.9082 time 38.23s  
Fri Apr 4 07:36:44 2025 Epoch: 4  
Train Epoch [4/100] [0/20] Loss: 0.8705 Time: 4.63s  
Train Epoch [4/100] [1/20] Loss: 0.9304 Time: 1.77s  
Train Epoch [4/100] [2/20] Loss: 0.9321 Time: 1.78s  
Train Epoch [4/100] [3/20] Loss: 0.8875 Time: 1.76s  
Train Epoch [4/100] [4/20] Loss: 0.8964 Time: 1.76s  
Train Epoch [4/100] [5/20] Loss: 0.9137 Time: 1.76s  
Train Epoch [4/100] [6/20] Loss: 0.9090 Time: 1.76s  
Train Epoch [4/100] [7/20] Loss: 0.8887 Time: 1.76s  
Train Epoch [4/100] [8/20] Loss: 0.8900 Time: 1.76s  
Train Epoch [4/100] [9/20] Loss: 0.8846 Time: 1.76s  
Train Epoch [4/100] [10/20] Loss: 0.8930 Time: 1.76s  
Train Epoch [4/100] [11/20] Loss: 0.8834 Time: 1.76s  
Train Epoch [4/100] [12/20] Loss: 0.8583 Time: 1.75s  
Train Epoch [4/100] [13/20] Loss: 0.8587 Time: 1.76s  
Train Epoch [4/100] [14/20] Loss: 0.8668 Time: 1.76s  
Train Epoch [4/100] [15/20] Loss: 0.8752 Time: 1.76s  
Train Epoch [4/100] [16/20] Loss: 0.8749 Time: 1.75s  
Train Epoch [4/100] [17/20] Loss: 0.8742 Time: 1.76s  
Train Epoch [4/100] [18/20] Loss: 0.8751 Time: 1.76s  
Train Epoch [4/100] [19/20] Loss: 0.8788 Time: 1.76s  
Final training 4/99 loss: 0.8788 time 38.09s  
Fri Apr 4 07:37:22 2025 Epoch: 5

Train Epoch [5/100] [0/20] Loss: 0.9503 Time: 4.74s  
Train Epoch [5/100] [1/20] Loss: 0.8720 Time: 1.76s  
Train Epoch [5/100] [2/20] Loss: 0.9034 Time: 1.75s  
Train Epoch [5/100] [3/20] Loss: 0.8736 Time: 1.76s  
Train Epoch [5/100] [4/20] Loss: 0.8988 Time: 1.75s  
Train Epoch [5/100] [5/20] Loss: 0.9042 Time: 1.76s  
Train Epoch [5/100] [6/20] Loss: 0.8975 Time: 1.75s  
Train Epoch [5/100] [7/20] Loss: 0.8959 Time: 1.76s  
Train Epoch [5/100] [8/20] Loss: 0.8894 Time: 1.75s  
Train Epoch [5/100] [9/20] Loss: 0.8876 Time: 1.76s  
Train Epoch [5/100] [10/20] Loss: 0.8697 Time: 1.76s  
Train Epoch [5/100] [11/20] Loss: 0.8715 Time: 1.76s  
Train Epoch [5/100] [12/20] Loss: 0.8739 Time: 1.75s  
Train Epoch [5/100] [13/20] Loss: 0.8829 Time: 1.75s  
Train Epoch [5/100] [14/20] Loss: 0.8848 Time: 1.76s  
Train Epoch [5/100] [15/20] Loss: 0.8816 Time: 1.76s  
Train Epoch [5/100] [16/20] Loss: 0.8883 Time: 1.75s  
Train Epoch [5/100] [17/20] Loss: 0.8852 Time: 1.76s  
Train Epoch [5/100] [18/20] Loss: 0.8781 Time: 1.76s  
Train Epoch [5/100] [19/20] Loss: 0.8624 Time: 1.76s  
Final training 5/99 loss: 0.8624 time 38.15s  
Fri Apr 4 07:38:00 2025 Epoch: 6  
Train Epoch [6/100] [0/20] Loss: 0.8827 Time: 4.73s  
Train Epoch [6/100] [1/20] Loss: 0.8650 Time: 1.77s  
Train Epoch [6/100] [2/20] Loss: 0.8883 Time: 1.78s  
Train Epoch [6/100] [3/20] Loss: 0.7887 Time: 1.77s  
Train Epoch [6/100] [4/20] Loss: 0.8306 Time: 1.75s  
Train Epoch [6/100] [5/20] Loss: 0.8254 Time: 1.76s  
Train Epoch [6/100] [6/20] Loss: 0.8300 Time: 1.75s  
Train Epoch [6/100] [7/20] Loss: 0.8513 Time: 1.76s  
Train Epoch [6/100] [8/20] Loss: 0.8332 Time: 1.75s  
Train Epoch [6/100] [9/20] Loss: 0.8355 Time: 1.76s  
Train Epoch [6/100] [10/20] Loss: 0.8401 Time: 1.76s  
Train Epoch [6/100] [11/20] Loss: 0.8384 Time: 1.75s  
Train Epoch [6/100] [12/20] Loss: 0.8483 Time: 1.75s  
Train Epoch [6/100] [13/20] Loss: 0.8448 Time: 1.76s  
Train Epoch [6/100] [14/20] Loss: 0.8513 Time: 1.76s  
Train Epoch [6/100] [15/20] Loss: 0.8452 Time: 1.75s  
Train Epoch [6/100] [16/20] Loss: 0.8328 Time: 1.76s  
Train Epoch [6/100] [17/20] Loss: 0.8298 Time: 1.76s  
Train Epoch [6/100] [18/20] Loss: 0.8121 Time: 1.76s  
Train Epoch [6/100] [19/20] Loss: 0.8215 Time: 1.76s  
Final training 6/99 loss: 0.8215 time 38.19s  
Fri Apr 4 07:38:39 2025 Epoch: 7  
Train Epoch [7/100] [0/20] Loss: 0.8221 Time: 4.42s  
Train Epoch [7/100] [1/20] Loss: 0.8848 Time: 1.76s  
Train Epoch [7/100] [2/20] Loss: 0.9232 Time: 1.76s  
Train Epoch [7/100] [3/20] Loss: 0.7933 Time: 1.78s  
Train Epoch [7/100] [4/20] Loss: 0.7919 Time: 1.76s  
Train Epoch [7/100] [5/20] Loss: 0.7629 Time: 1.76s  
Train Epoch [7/100] [6/20] Loss: 0.7896 Time: 1.76s  
Train Epoch [7/100] [7/20] Loss: 0.7741 Time: 1.75s  
Train Epoch [7/100] [8/20] Loss: 0.7822 Time: 1.75s  
Train Epoch [7/100] [9/20] Loss: 0.8040 Time: 1.76s  
Train Epoch [7/100] [10/20] Loss: 0.7714 Time: 1.76s  
Train Epoch [7/100] [11/20] Loss: 0.7674 Time: 1.76s  
Train Epoch [7/100] [12/20] Loss: 0.7853 Time: 1.76s  
Train Epoch [7/100] [13/20] Loss: 0.8006 Time: 1.76s  
Train Epoch [7/100] [14/20] Loss: 0.7974 Time: 1.76s  
Train Epoch [7/100] [15/20] Loss: 0.7992 Time: 1.76s

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Train Epoch [7/100] [16/20] Loss: 0.8016 Time: 1.76s
Train Epoch [7/100] [17/20] Loss: 0.7953 Time: 1.76s
Train Epoch [7/100] [18/20] Loss: 0.7957 Time: 1.76s
Train Epoch [7/100] [19/20] Loss: 0.8033 Time: 1.76s
Final training 7/99 loss: 0.8033 time 37.86s
Fri Apr  4 07:39:16 2025 Epoch: 8
Train Epoch [8/100] [0/20] Loss: 0.9297 Time: 4.88s
Train Epoch [8/100] [1/20] Loss: 0.9202 Time: 1.76s
Train Epoch [8/100] [2/20] Loss: 0.9468 Time: 1.76s
Train Epoch [8/100] [3/20] Loss: 0.8970 Time: 1.76s
Train Epoch [8/100] [4/20] Loss: 0.9170 Time: 1.75s
Train Epoch [8/100] [5/20] Loss: 0.8919 Time: 1.76s
Train Epoch [8/100] [6/20] Loss: 0.8790 Time: 1.76s
Train Epoch [8/100] [7/20] Loss: 0.8941 Time: 1.76s
Train Epoch [8/100] [8/20] Loss: 0.8800 Time: 1.75s
Train Epoch [8/100] [9/20] Loss: 0.8718 Time: 1.76s
Train Epoch [8/100] [10/20] Loss: 0.8357 Time: 1.76s
Train Epoch [8/100] [11/20] Loss: 0.8364 Time: 1.75s
Train Epoch [8/100] [12/20] Loss: 0.8143 Time: 1.76s
Train Epoch [8/100] [13/20] Loss: 0.8106 Time: 1.76s
Train Epoch [8/100] [14/20] Loss: 0.8232 Time: 1.76s
Train Epoch [8/100] [15/20] Loss: 0.8279 Time: 1.75s
Train Epoch [8/100] [16/20] Loss: 0.8320 Time: 1.76s
Train Epoch [8/100] [17/20] Loss: 0.8323 Time: 1.76s
Train Epoch [8/100] [18/20] Loss: 0.8247 Time: 1.75s
Train Epoch [8/100] [19/20] Loss: 0.8119 Time: 1.76s
Final training 8/99 loss: 0.8119 time 38.30s
Fri Apr  4 07:39:55 2025 Epoch: 9
Train Epoch [9/100] [0/20] Loss: 0.9596 Time: 4.47s
Train Epoch [9/100] [1/20] Loss: 0.8553 Time: 1.80s
Train Epoch [9/100] [2/20] Loss: 0.7802 Time: 1.78s
Train Epoch [9/100] [3/20] Loss: 0.7499 Time: 1.76s
Train Epoch [9/100] [4/20] Loss: 0.6961 Time: 1.75s
Train Epoch [9/100] [5/20] Loss: 0.7009 Time: 1.76s
Train Epoch [9/100] [6/20] Loss: 0.7436 Time: 1.76s
Train Epoch [9/100] [7/20] Loss: 0.7493 Time: 1.75s
Train Epoch [9/100] [8/20] Loss: 0.7434 Time: 1.76s
Train Epoch [9/100] [9/20] Loss: 0.7643 Time: 1.76s
Train Epoch [9/100] [10/20] Loss: 0.7745 Time: 1.76s
Train Epoch [9/100] [11/20] Loss: 0.7744 Time: 1.76s
Train Epoch [9/100] [12/20] Loss: 0.7896 Time: 1.76s
Train Epoch [9/100] [13/20] Loss: 0.7965 Time: 1.76s
Train Epoch [9/100] [14/20] Loss: 0.8055 Time: 1.76s
Train Epoch [9/100] [15/20] Loss: 0.8177 Time: 1.76s
Train Epoch [9/100] [16/20] Loss: 0.8120 Time: 1.75s
Train Epoch [9/100] [17/20] Loss: 0.8225 Time: 1.76s
Train Epoch [9/100] [18/20] Loss: 0.8303 Time: 1.76s
Train Epoch [9/100] [19/20] Loss: 0.8138 Time: 1.76s
Final training 9/99 loss: 0.8138 time 37.96s
Val Epoch [9/100] [0/6] Dice TC: 0.0006 Dice WT: 0.1704 Dice ET: 0.0000 Time: 16.87s
Val Epoch [9/100] [1/6] Dice TC: 0.0001 Dice WT: 0.7818 Dice ET: 0.0001 Time: 14.70s
Val Epoch [9/100] [2/6] Dice TC: 0.1825 Dice WT: 0.2498 Dice ET: 0.0001 Time: 14.70s
Val Epoch [9/100] [3/6] Dice TC: 0.0224 Dice WT: 0.4036 Dice ET: 0.0000 Time: 14.70s
Val Epoch [9/100] [4/6] Dice TC: 0.4984 Dice WT: 0.6140 Dice ET: 0.3446 Time: 14.69s
Val Epoch [9/100] [5/6] Dice TC: 0.0605 Dice WT: 0.1703 Dice ET: 0.0000 Time: 14.70s
Final validation stats 9/99 , dice_tc: 0.0605029389261994 , dice_wt: 0.1702868193387
9852 , dice_et: 0.0 , Dice_Avg: 0.07692991942167282 , time 90.40s
New best model: 0.007505 --> 0.076930
Checkpoint saved: ./checkpoints/best_model.pth
Fri Apr  4 07:42:04 2025 Epoch: 10
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Train Epoch [10/100] [0/20] Loss: 0.7947 Time: 4.77s  
Train Epoch [10/100] [1/20] Loss: 0.8900 Time: 1.76s  
Train Epoch [10/100] [2/20] Loss: 0.8255 Time: 1.76s  
Train Epoch [10/100] [3/20] Loss: 0.7528 Time: 1.76s  
Train Epoch [10/100] [4/20] Loss: 0.7945 Time: 1.76s  
Train Epoch [10/100] [5/20] Loss: 0.7347 Time: 1.76s  
Train Epoch [10/100] [6/20] Loss: 0.7410 Time: 1.76s  
Train Epoch [10/100] [7/20] Loss: 0.7451 Time: 1.76s  
Train Epoch [10/100] [8/20] Loss: 0.7311 Time: 1.76s  
Train Epoch [10/100] [9/20] Loss: 0.7300 Time: 1.76s  
Train Epoch [10/100] [10/20] Loss: 0.7288 Time: 1.76s  
Train Epoch [10/100] [11/20] Loss: 0.7320 Time: 1.76s  
Train Epoch [10/100] [12/20] Loss: 0.7331 Time: 1.94s  
Train Epoch [10/100] [13/20] Loss: 0.7477 Time: 1.75s  
Train Epoch [10/100] [14/20] Loss: 0.7278 Time: 1.76s  
Train Epoch [10/100] [15/20] Loss: 0.7306 Time: 1.76s  
Train Epoch [10/100] [16/20] Loss: 0.7206 Time: 1.76s  
Train Epoch [10/100] [17/20] Loss: 0.7138 Time: 1.76s  
Train Epoch [10/100] [18/20] Loss: 0.7289 Time: 1.76s  
Train Epoch [10/100] [19/20] Loss: 0.7424 Time: 1.76s  
Final training 10/99 loss: 0.7424 time 38.38s  
Fri Apr 4 07:42:42 2025 Epoch: 11  
Train Epoch [11/100] [0/20] Loss: 0.2935 Time: 4.64s  
Train Epoch [11/100] [1/20] Loss: 0.5264 Time: 1.77s  
Train Epoch [11/100] [2/20] Loss: 0.6842 Time: 1.76s  
Train Epoch [11/100] [3/20] Loss: 0.7632 Time: 1.76s  
Train Epoch [11/100] [4/20] Loss: 0.7791 Time: 1.76s  
Train Epoch [11/100] [5/20] Loss: 0.7864 Time: 1.76s  
Train Epoch [11/100] [6/20] Loss: 0.7808 Time: 1.76s  
Train Epoch [11/100] [7/20] Loss: 0.7987 Time: 1.76s  
Train Epoch [11/100] [8/20] Loss: 0.7866 Time: 1.76s  
Train Epoch [11/100] [9/20] Loss: 0.7767 Time: 1.76s  
Train Epoch [11/100] [10/20] Loss: 0.7908 Time: 1.76s  
Train Epoch [11/100] [11/20] Loss: 0.7777 Time: 1.76s  
Train Epoch [11/100] [12/20] Loss: 0.7500 Time: 1.76s  
Train Epoch [11/100] [13/20] Loss: 0.7646 Time: 1.76s  
Train Epoch [11/100] [14/20] Loss: 0.7703 Time: 1.76s  
Train Epoch [11/100] [15/20] Loss: 0.7746 Time: 1.76s  
Train Epoch [11/100] [16/20] Loss: 0.7716 Time: 1.76s  
Train Epoch [11/100] [17/20] Loss: 0.7843 Time: 1.76s  
Train Epoch [11/100] [18/20] Loss: 0.7814 Time: 1.76s  
Train Epoch [11/100] [19/20] Loss: 0.7912 Time: 1.76s  
Final training 11/99 loss: 0.7912 time 38.11s  
Fri Apr 4 07:43:20 2025 Epoch: 12  
Train Epoch [12/100] [0/20] Loss: 0.6797 Time: 4.71s  
Train Epoch [12/100] [1/20] Loss: 0.8395 Time: 1.76s  
Train Epoch [12/100] [2/20] Loss: 0.8665 Time: 1.75s  
Train Epoch [12/100] [3/20] Loss: 0.8511 Time: 1.76s  
Train Epoch [12/100] [4/20] Loss: 0.8782 Time: 1.76s  
Train Epoch [12/100] [5/20] Loss: 0.8582 Time: 1.76s  
Train Epoch [12/100] [6/20] Loss: 0.8055 Time: 1.76s  
Train Epoch [12/100] [7/20] Loss: 0.8102 Time: 1.76s  
Train Epoch [12/100] [8/20] Loss: 0.8102 Time: 1.76s  
Train Epoch [12/100] [9/20] Loss: 0.8000 Time: 1.76s  
Train Epoch [12/100] [10/20] Loss: 0.8181 Time: 1.76s  
Train Epoch [12/100] [11/20] Loss: 0.8321 Time: 1.76s  
Train Epoch [12/100] [12/20] Loss: 0.8446 Time: 1.76s  
Train Epoch [12/100] [13/20] Loss: 0.8554 Time: 1.76s  
Train Epoch [12/100] [14/20] Loss: 0.8619 Time: 1.76s  
Train Epoch [12/100] [15/20] Loss: 0.8684 Time: 1.76s

Train Epoch [12/100] [16/20] Loss: 0.8610 Time: 1.76s  
Train Epoch [12/100] [17/20] Loss: 0.8528 Time: 1.76s  
Train Epoch [12/100] [18/20] Loss: 0.8468 Time: 1.76s  
Train Epoch [12/100] [19/20] Loss: 0.8179 Time: 1.76s  
Final training 12/99 loss: 0.8179 time 38.13s  
Fri Apr 4 07:43:58 2025 Epoch: 13  
Train Epoch [13/100] [0/20] Loss: 0.7428 Time: 4.77s  
Train Epoch [13/100] [1/20] Loss: 0.7694 Time: 1.78s  
Train Epoch [13/100] [2/20] Loss: 0.6964 Time: 1.76s  
Train Epoch [13/100] [3/20] Loss: 0.7721 Time: 1.78s  
Train Epoch [13/100] [4/20] Loss: 0.8140 Time: 1.75s  
Train Epoch [13/100] [5/20] Loss: 0.7934 Time: 1.76s  
Train Epoch [13/100] [6/20] Loss: 0.8185 Time: 1.76s  
Train Epoch [13/100] [7/20] Loss: 0.8396 Time: 1.76s  
Train Epoch [13/100] [8/20] Loss: 0.8306 Time: 1.76s  
Train Epoch [13/100] [9/20] Loss: 0.8241 Time: 1.75s  
Train Epoch [13/100] [10/20] Loss: 0.8219 Time: 1.76s  
Train Epoch [13/100] [11/20] Loss: 0.7975 Time: 1.75s  
Train Epoch [13/100] [12/20] Loss: 0.8088 Time: 1.76s  
Train Epoch [13/100] [13/20] Loss: 0.7854 Time: 1.76s  
Train Epoch [13/100] [14/20] Loss: 0.7997 Time: 1.76s  
Train Epoch [13/100] [15/20] Loss: 0.7997 Time: 1.76s  
Train Epoch [13/100] [16/20] Loss: 0.7992 Time: 1.76s  
Train Epoch [13/100] [17/20] Loss: 0.7894 Time: 1.75s  
Train Epoch [13/100] [18/20] Loss: 0.7858 Time: 1.76s  
Train Epoch [13/100] [19/20] Loss: 0.7851 Time: 1.76s  
Final training 13/99 loss: 0.7851 time 38.24s  
Fri Apr 4 07:44:37 2025 Epoch: 14  
Train Epoch [14/100] [0/20] Loss: 0.3264 Time: 4.80s  
Train Epoch [14/100] [1/20] Loss: 0.5514 Time: 1.77s  
Train Epoch [14/100] [2/20] Loss: 0.6892 Time: 1.76s  
Train Epoch [14/100] [3/20] Loss: 0.7669 Time: 1.76s  
Train Epoch [14/100] [4/20] Loss: 0.7592 Time: 1.76s  
Train Epoch [14/100] [5/20] Loss: 0.7939 Time: 1.76s  
Train Epoch [14/100] [6/20] Loss: 0.7597 Time: 1.75s  
Train Epoch [14/100] [7/20] Loss: 0.7591 Time: 1.76s  
Train Epoch [14/100] [8/20] Loss: 0.7636 Time: 1.75s  
Train Epoch [14/100] [9/20] Loss: 0.7216 Time: 1.76s  
Train Epoch [14/100] [10/20] Loss: 0.7293 Time: 1.75s  
Train Epoch [14/100] [11/20] Loss: 0.7348 Time: 1.75s  
Train Epoch [14/100] [12/20] Loss: 0.7509 Time: 1.76s  
Train Epoch [14/100] [13/20] Loss: 0.7370 Time: 1.76s  
Train Epoch [14/100] [14/20] Loss: 0.7336 Time: 1.75s  
Train Epoch [14/100] [15/20] Loss: 0.7087 Time: 1.75s  
Train Epoch [14/100] [16/20] Loss: 0.7255 Time: 1.76s  
Train Epoch [14/100] [17/20] Loss: 0.7216 Time: 1.76s  
Train Epoch [14/100] [18/20] Loss: 0.7323 Time: 1.75s  
Train Epoch [14/100] [19/20] Loss: 0.7352 Time: 1.75s  
Final training 14/99 loss: 0.7352 time 38.23s  
Fri Apr 4 07:45:15 2025 Epoch: 15  
Train Epoch [15/100] [0/20] Loss: 0.7260 Time: 4.88s  
Train Epoch [15/100] [1/20] Loss: 0.7433 Time: 1.76s  
Train Epoch [15/100] [2/20] Loss: 0.8096 Time: 1.78s  
Train Epoch [15/100] [3/20] Loss: 0.8134 Time: 1.76s  
Train Epoch [15/100] [4/20] Loss: 0.7098 Time: 1.76s  
Train Epoch [15/100] [5/20] Loss: 0.6790 Time: 1.75s  
Train Epoch [15/100] [6/20] Loss: 0.6815 Time: 1.75s  
Train Epoch [15/100] [7/20] Loss: 0.6376 Time: 1.76s  
Train Epoch [15/100] [8/20] Loss: 0.6766 Time: 1.76s  
Train Epoch [15/100] [9/20] Loss: 0.6665 Time: 1.75s

Train Epoch [15/100] [10/20] Loss: 0.6968 Time: 1.76s  
Train Epoch [15/100] [11/20] Loss: 0.7052 Time: 1.75s  
Train Epoch [15/100] [12/20] Loss: 0.7111 Time: 1.76s  
Train Epoch [15/100] [13/20] Loss: 0.7106 Time: 1.76s  
Train Epoch [15/100] [14/20] Loss: 0.7274 Time: 1.76s  
Train Epoch [15/100] [15/20] Loss: 0.7245 Time: 1.75s  
Train Epoch [15/100] [16/20] Loss: 0.7331 Time: 1.76s  
Train Epoch [15/100] [17/20] Loss: 0.7238 Time: 1.76s  
Train Epoch [15/100] [18/20] Loss: 0.7205 Time: 1.76s  
Train Epoch [15/100] [19/20] Loss: 0.7298 Time: 1.75s  
Final training 15/99 loss: 0.7298 time 38.31s  
Fri Apr 4 07:45:53 2025 Epoch: 16  
Train Epoch [16/100] [0/20] Loss: 0.4844 Time: 4.54s  
Train Epoch [16/100] [1/20] Loss: 0.5996 Time: 1.77s  
Train Epoch [16/100] [2/20] Loss: 0.5740 Time: 1.76s  
Train Epoch [16/100] [3/20] Loss: 0.6396 Time: 1.77s  
Train Epoch [16/100] [4/20] Loss: 0.6927 Time: 1.76s  
Train Epoch [16/100] [5/20] Loss: 0.7028 Time: 1.76s  
Train Epoch [16/100] [6/20] Loss: 0.6427 Time: 1.76s  
Train Epoch [16/100] [7/20] Loss: 0.6271 Time: 1.75s  
Train Epoch [16/100] [8/20] Loss: 0.6226 Time: 1.76s  
Train Epoch [16/100] [9/20] Loss: 0.6312 Time: 1.76s  
Train Epoch [16/100] [10/20] Loss: 0.6515 Time: 1.76s  
Train Epoch [16/100] [11/20] Loss: 0.6679 Time: 1.76s  
Train Epoch [16/100] [12/20] Loss: 0.6921 Time: 1.75s  
Train Epoch [16/100] [13/20] Loss: 0.6873 Time: 1.76s  
Train Epoch [16/100] [14/20] Loss: 0.6881 Time: 1.76s  
Train Epoch [16/100] [15/20] Loss: 0.6989 Time: 1.76s  
Train Epoch [16/100] [16/20] Loss: 0.6907 Time: 1.76s  
Train Epoch [16/100] [17/20] Loss: 0.6979 Time: 1.76s  
Train Epoch [16/100] [18/20] Loss: 0.7078 Time: 1.76s  
Train Epoch [16/100] [19/20] Loss: 0.6863 Time: 1.75s  
Final training 16/99 loss: 0.6863 time 37.99s  
Fri Apr 4 07:46:31 2025 Epoch: 17  
Train Epoch [17/100] [0/20] Loss: 0.6050 Time: 4.69s  
Train Epoch [17/100] [1/20] Loss: 0.7701 Time: 1.76s  
Train Epoch [17/100] [2/20] Loss: 0.8467 Time: 1.77s  
Train Epoch [17/100] [3/20] Loss: 0.8850 Time: 1.76s  
Train Epoch [17/100] [4/20] Loss: 0.8194 Time: 1.75s  
Train Epoch [17/100] [5/20] Loss: 0.8454 Time: 1.76s  
Train Epoch [17/100] [6/20] Loss: 0.8193 Time: 1.77s  
Train Epoch [17/100] [7/20] Loss: 0.8055 Time: 1.76s  
Train Epoch [17/100] [8/20] Loss: 0.8271 Time: 1.76s  
Train Epoch [17/100] [9/20] Loss: 0.7881 Time: 1.76s  
Train Epoch [17/100] [10/20] Loss: 0.7902 Time: 1.75s  
Train Epoch [17/100] [11/20] Loss: 0.7905 Time: 1.76s  
Train Epoch [17/100] [12/20] Loss: 0.8066 Time: 1.76s  
Train Epoch [17/100] [13/20] Loss: 0.8065 Time: 1.75s  
Train Epoch [17/100] [14/20] Loss: 0.8194 Time: 1.75s  
Train Epoch [17/100] [15/20] Loss: 0.8097 Time: 1.75s  
Train Epoch [17/100] [16/20] Loss: 0.8028 Time: 1.76s  
Train Epoch [17/100] [17/20] Loss: 0.8122 Time: 1.76s  
Train Epoch [17/100] [18/20] Loss: 0.8158 Time: 1.76s  
Train Epoch [17/100] [19/20] Loss: 0.8161 Time: 1.75s  
Final training 17/99 loss: 0.8161 time 38.14s  
Fri Apr 4 07:47:09 2025 Epoch: 18  
Train Epoch [18/100] [0/20] Loss: 0.7111 Time: 4.69s  
Train Epoch [18/100] [1/20] Loss: 0.6139 Time: 1.77s  
Train Epoch [18/100] [2/20] Loss: 0.7425 Time: 1.76s  
Train Epoch [18/100] [3/20] Loss: 0.7910 Time: 1.76s

Train Epoch [18/100] [4/20] Loss: 0.7320 Time: 1.75s  
Train Epoch [18/100] [5/20] Loss: 0.7687 Time: 1.75s  
Train Epoch [18/100] [6/20] Loss: 0.7734 Time: 1.76s  
Train Epoch [18/100] [7/20] Loss: 0.7607 Time: 1.76s  
Train Epoch [18/100] [8/20] Loss: 0.7728 Time: 1.76s  
Train Epoch [18/100] [9/20] Loss: 0.7623 Time: 1.76s  
Train Epoch [18/100] [10/20] Loss: 0.7812 Time: 1.76s  
Train Epoch [18/100] [11/20] Loss: 0.7801 Time: 1.75s  
Train Epoch [18/100] [12/20] Loss: 0.7695 Time: 1.76s  
Train Epoch [18/100] [13/20] Loss: 0.7716 Time: 1.76s  
Train Epoch [18/100] [14/20] Loss: 0.7714 Time: 1.76s  
Train Epoch [18/100] [15/20] Loss: 0.7855 Time: 1.76s  
Train Epoch [18/100] [16/20] Loss: 0.7842 Time: 1.76s  
Train Epoch [18/100] [17/20] Loss: 0.7787 Time: 1.76s  
Train Epoch [18/100] [18/20] Loss: 0.7720 Time: 1.76s  
Train Epoch [18/100] [19/20] Loss: 0.7834 Time: 1.76s  
Final training 18/99 loss: 0.7834 time 38.15s  
Fri Apr 4 07:47:47 2025 Epoch: 19  
Train Epoch [19/100] [0/20] Loss: 0.6838 Time: 4.69s  
Train Epoch [19/100] [1/20] Loss: 0.6717 Time: 1.76s  
Train Epoch [19/100] [2/20] Loss: 0.5419 Time: 1.77s  
Train Epoch [19/100] [3/20] Loss: 0.5923 Time: 1.75s  
Train Epoch [19/100] [4/20] Loss: 0.5248 Time: 1.76s  
Train Epoch [19/100] [5/20] Loss: 0.5967 Time: 1.76s  
Train Epoch [19/100] [6/20] Loss: 0.6543 Time: 1.76s  
Train Epoch [19/100] [7/20] Loss: 0.6695 Time: 1.76s  
Train Epoch [19/100] [8/20] Loss: 0.6899 Time: 1.76s  
Train Epoch [19/100] [9/20] Loss: 0.6465 Time: 1.76s  
Train Epoch [19/100] [10/20] Loss: 0.6349 Time: 1.76s  
Train Epoch [19/100] [11/20] Loss: 0.6495 Time: 1.75s  
Train Epoch [19/100] [12/20] Loss: 0.6396 Time: 1.76s  
Train Epoch [19/100] [13/20] Loss: 0.6318 Time: 1.75s  
Train Epoch [19/100] [14/20] Loss: 0.6373 Time: 1.75s  
Train Epoch [19/100] [15/20] Loss: 0.6512 Time: 1.76s  
Train Epoch [19/100] [16/20] Loss: 0.6710 Time: 1.76s  
Train Epoch [19/100] [17/20] Loss: 0.6797 Time: 1.76s  
Train Epoch [19/100] [18/20] Loss: 0.6694 Time: 1.76s  
Train Epoch [19/100] [19/20] Loss: 0.6731 Time: 1.75s  
Final training 19/99 loss: 0.6731 time 38.13s  
Val Epoch [19/100] [0/6] Dice TC: 0.0012 Dice WT: 0.1388 Dice ET: 0.0000 Time: 16.97s  
Val Epoch [19/100] [1/6] Dice TC: 0.0000 Dice WT: 0.5893 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [19/100] [2/6] Dice TC: 0.1607 Dice WT: 0.1782 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [19/100] [3/6] Dice TC: 0.0261 Dice WT: 0.2961 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [19/100] [4/6] Dice TC: 0.6829 Dice WT: 0.5919 Dice ET: 0.5431 Time: 14.69s  
Val Epoch [19/100] [5/6] Dice TC: 0.0613 Dice WT: 0.0860 Dice ET: 0.0000 Time: 14.70s  
Final validation stats 19/99 , dice\_tc: 0.06131422892212868 , dice\_wt: 0.085983708500  
86212 , dice\_et: 0.0 , Dice\_Avg: 0.049099311232566833 , time 90.50s  
Fri Apr 4 07:49:56 2025 Epoch: 20  
Train Epoch [20/100] [0/20] Loss: 1.0000 Time: 4.74s  
Train Epoch [20/100] [1/20] Loss: 0.9998 Time: 1.76s  
Train Epoch [20/100] [2/20] Loss: 0.9036 Time: 1.76s  
Train Epoch [20/100] [3/20] Loss: 0.9141 Time: 1.78s  
Train Epoch [20/100] [4/20] Loss: 0.8177 Time: 1.75s  
Train Epoch [20/100] [5/20] Loss: 0.8043 Time: 1.75s  
Train Epoch [20/100] [6/20] Loss: 0.7823 Time: 1.75s  
Train Epoch [20/100] [7/20] Loss: 0.7842 Time: 1.76s  
Train Epoch [20/100] [8/20] Loss: 0.7221 Time: 1.76s  
Train Epoch [20/100] [9/20] Loss: 0.7161 Time: 1.76s  
Train Epoch [20/100] [10/20] Loss: 0.7161 Time: 1.75s  
Train Epoch [20/100] [11/20] Loss: 0.7145 Time: 1.95s

Train Epoch [20/100] [12/20] Loss: 0.7198 Time: 1.76s  
Train Epoch [20/100] [13/20] Loss: 0.6869 Time: 1.76s  
Train Epoch [20/100] [14/20] Loss: 0.6813 Time: 1.76s  
Train Epoch [20/100] [15/20] Loss: 0.6801 Time: 1.75s  
Train Epoch [20/100] [16/20] Loss: 0.6530 Time: 1.76s  
Train Epoch [20/100] [17/20] Loss: 0.6418 Time: 1.75s  
Train Epoch [20/100] [18/20] Loss: 0.6582 Time: 1.76s  
Train Epoch [20/100] [19/20] Loss: 0.6732 Time: 1.76s  
Final training 20/99 loss: 0.6732 time 38.37s  
Fri Apr 4 07:50:34 2025 Epoch: 21  
Train Epoch [21/100] [0/20] Loss: 0.2116 Time: 4.86s  
Train Epoch [21/100] [1/20] Loss: 0.3705 Time: 1.78s  
Train Epoch [21/100] [2/20] Loss: 0.5142 Time: 1.76s  
Train Epoch [21/100] [3/20] Loss: 0.5111 Time: 1.75s  
Train Epoch [21/100] [4/20] Loss: 0.5410 Time: 1.75s  
Train Epoch [21/100] [5/20] Loss: 0.5870 Time: 1.75s  
Train Epoch [21/100] [6/20] Loss: 0.5339 Time: 1.76s  
Train Epoch [21/100] [7/20] Loss: 0.5922 Time: 1.75s  
Train Epoch [21/100] [8/20] Loss: 0.6143 Time: 1.75s  
Train Epoch [21/100] [9/20] Loss: 0.6248 Time: 1.76s  
Train Epoch [21/100] [10/20] Loss: 0.6450 Time: 1.76s  
Train Epoch [21/100] [11/20] Loss: 0.6511 Time: 1.75s  
Train Epoch [21/100] [12/20] Loss: 0.6349 Time: 1.76s  
Train Epoch [21/100] [13/20] Loss: 0.6609 Time: 1.76s  
Train Epoch [21/100] [14/20] Loss: 0.6583 Time: 1.75s  
Train Epoch [21/100] [15/20] Loss: 0.6504 Time: 1.75s  
Train Epoch [21/100] [16/20] Loss: 0.6564 Time: 1.75s  
Train Epoch [21/100] [17/20] Loss: 0.6598 Time: 1.75s  
Train Epoch [21/100] [18/20] Loss: 0.6777 Time: 1.76s  
Train Epoch [21/100] [19/20] Loss: 0.6887 Time: 1.75s  
Final training 21/99 loss: 0.6887 time 38.30s  
Fri Apr 4 07:51:13 2025 Epoch: 22  
Train Epoch [22/100] [0/20] Loss: 0.1557 Time: 4.68s  
Train Epoch [22/100] [1/20] Loss: 0.4738 Time: 1.78s  
Train Epoch [22/100] [2/20] Loss: 0.5209 Time: 1.76s  
Train Epoch [22/100] [3/20] Loss: 0.5665 Time: 1.75s  
Train Epoch [22/100] [4/20] Loss: 0.6532 Time: 1.75s  
Train Epoch [22/100] [5/20] Loss: 0.7033 Time: 1.75s  
Train Epoch [22/100] [6/20] Loss: 0.7105 Time: 1.75s  
Train Epoch [22/100] [7/20] Loss: 0.7089 Time: 1.75s  
Train Epoch [22/100] [8/20] Loss: 0.6487 Time: 1.75s  
Train Epoch [22/100] [9/20] Loss: 0.6584 Time: 1.76s  
Train Epoch [22/100] [10/20] Loss: 0.6577 Time: 1.75s  
Train Epoch [22/100] [11/20] Loss: 0.6862 Time: 1.75s  
Train Epoch [22/100] [12/20] Loss: 0.6867 Time: 1.76s  
Train Epoch [22/100] [13/20] Loss: 0.7091 Time: 1.76s  
Train Epoch [22/100] [14/20] Loss: 0.7285 Time: 1.75s  
Train Epoch [22/100] [15/20] Loss: 0.7390 Time: 1.76s  
Train Epoch [22/100] [16/20] Loss: 0.7396 Time: 1.76s  
Train Epoch [22/100] [17/20] Loss: 0.7240 Time: 1.76s  
Train Epoch [22/100] [18/20] Loss: 0.7267 Time: 1.75s  
Train Epoch [22/100] [19/20] Loss: 0.7271 Time: 1.75s  
Final training 22/99 loss: 0.7271 time 38.10s  
Fri Apr 4 07:51:51 2025 Epoch: 23  
Train Epoch [23/100] [0/20] Loss: 0.4484 Time: 4.70s  
Train Epoch [23/100] [1/20] Loss: 0.7242 Time: 1.76s  
Train Epoch [23/100] [2/20] Loss: 0.6950 Time: 1.76s  
Train Epoch [23/100] [3/20] Loss: 0.5789 Time: 1.78s  
Train Epoch [23/100] [4/20] Loss: 0.6101 Time: 1.75s  
Train Epoch [23/100] [5/20] Loss: 0.6328 Time: 1.76s

Train Epoch [23/100] [6/20] Loss: 0.6853 Time: 1.76s  
Train Epoch [23/100] [7/20] Loss: 0.6849 Time: 1.75s  
Train Epoch [23/100] [8/20] Loss: 0.6654 Time: 1.76s  
Train Epoch [23/100] [9/20] Loss: 0.6162 Time: 1.76s  
Train Epoch [23/100] [10/20] Loss: 0.6222 Time: 1.76s  
Train Epoch [23/100] [11/20] Loss: 0.6428 Time: 1.75s  
Train Epoch [23/100] [12/20] Loss: 0.6471 Time: 1.76s  
Train Epoch [23/100] [13/20] Loss: 0.6487 Time: 1.76s  
Train Epoch [23/100] [14/20] Loss: 0.6229 Time: 1.75s  
Train Epoch [23/100] [15/20] Loss: 0.6333 Time: 1.76s  
Train Epoch [23/100] [16/20] Loss: 0.6538 Time: 1.76s  
Train Epoch [23/100] [17/20] Loss: 0.6630 Time: 1.76s  
Train Epoch [23/100] [18/20] Loss: 0.6676 Time: 1.76s  
Train Epoch [23/100] [19/20] Loss: 0.6749 Time: 1.75s  
Final training 23/99 loss: 0.6749 time 38.16s  
Fri Apr 4 07:52:29 2025 Epoch: 24  
Train Epoch [24/100] [0/20] Loss: 0.2963 Time: 4.68s  
Train Epoch [24/100] [1/20] Loss: 0.5187 Time: 1.76s  
Train Epoch [24/100] [2/20] Loss: 0.5745 Time: 1.75s  
Train Epoch [24/100] [3/20] Loss: 0.6137 Time: 1.76s  
Train Epoch [24/100] [4/20] Loss: 0.6910 Time: 1.75s  
Train Epoch [24/100] [5/20] Loss: 0.6487 Time: 1.76s  
Train Epoch [24/100] [6/20] Loss: 0.6807 Time: 1.75s  
Train Epoch [24/100] [7/20] Loss: 0.6502 Time: 1.76s  
Train Epoch [24/100] [8/20] Loss: 0.6394 Time: 1.76s  
Train Epoch [24/100] [9/20] Loss: 0.6519 Time: 1.76s  
Train Epoch [24/100] [10/20] Loss: 0.6566 Time: 1.76s  
Train Epoch [24/100] [11/20] Loss: 0.6607 Time: 1.75s  
Train Epoch [24/100] [12/20] Loss: 0.6806 Time: 1.75s  
Train Epoch [24/100] [13/20] Loss: 0.6600 Time: 1.75s  
Train Epoch [24/100] [14/20] Loss: 0.6514 Time: 1.76s  
Train Epoch [24/100] [15/20] Loss: 0.6732 Time: 1.76s  
Train Epoch [24/100] [16/20] Loss: 0.6758 Time: 1.76s  
Train Epoch [24/100] [17/20] Loss: 0.6909 Time: 1.76s  
Train Epoch [24/100] [18/20] Loss: 0.6939 Time: 1.75s  
Train Epoch [24/100] [19/20] Loss: 0.6912 Time: 1.75s  
Final training 24/99 loss: 0.6912 time 38.09s  
Fri Apr 4 07:53:07 2025 Epoch: 25  
Train Epoch [25/100] [0/20] Loss: 0.6114 Time: 4.63s  
Train Epoch [25/100] [1/20] Loss: 0.6757 Time: 1.76s  
Train Epoch [25/100] [2/20] Loss: 0.7181 Time: 1.78s  
Train Epoch [25/100] [3/20] Loss: 0.7320 Time: 1.76s  
Train Epoch [25/100] [4/20] Loss: 0.7269 Time: 1.75s  
Train Epoch [25/100] [5/20] Loss: 0.6812 Time: 1.75s  
Train Epoch [25/100] [6/20] Loss: 0.6878 Time: 1.76s  
Train Epoch [25/100] [7/20] Loss: 0.6842 Time: 1.75s  
Train Epoch [25/100] [8/20] Loss: 0.6591 Time: 1.75s  
Train Epoch [25/100] [9/20] Loss: 0.6115 Time: 1.75s  
Train Epoch [25/100] [10/20] Loss: 0.6131 Time: 1.76s  
Train Epoch [25/100] [11/20] Loss: 0.6075 Time: 1.75s  
Train Epoch [25/100] [12/20] Loss: 0.6211 Time: 1.76s  
Train Epoch [25/100] [13/20] Loss: 0.6430 Time: 1.75s  
Train Epoch [25/100] [14/20] Loss: 0.6538 Time: 1.75s  
Train Epoch [25/100] [15/20] Loss: 0.6580 Time: 1.75s  
Train Epoch [25/100] [16/20] Loss: 0.6586 Time: 1.76s  
Train Epoch [25/100] [17/20] Loss: 0.6352 Time: 1.75s  
Train Epoch [25/100] [18/20] Loss: 0.6544 Time: 1.75s  
Train Epoch [25/100] [19/20] Loss: 0.6635 Time: 1.75s  
Final training 25/99 loss: 0.6635 time 38.04s  
Fri Apr 4 07:53:45 2025 Epoch: 26

Train Epoch [26/100] [0/20] Loss: 0.7393 Time: 4.60s  
Train Epoch [26/100] [1/20] Loss: 0.8274 Time: 1.76s  
Train Epoch [26/100] [2/20] Loss: 0.7778 Time: 1.76s  
Train Epoch [26/100] [3/20] Loss: 0.7615 Time: 1.75s  
Train Epoch [26/100] [4/20] Loss: 0.7996 Time: 1.75s  
Train Epoch [26/100] [5/20] Loss: 0.7794 Time: 1.75s  
Train Epoch [26/100] [6/20] Loss: 0.7990 Time: 1.76s  
Train Epoch [26/100] [7/20] Loss: 0.7902 Time: 1.75s  
Train Epoch [26/100] [8/20] Loss: 0.7974 Time: 1.76s  
Train Epoch [26/100] [9/20] Loss: 0.7431 Time: 1.76s  
Train Epoch [26/100] [10/20] Loss: 0.7664 Time: 1.75s  
Train Epoch [26/100] [11/20] Loss: 0.7859 Time: 1.75s  
Train Epoch [26/100] [12/20] Loss: 0.7633 Time: 1.76s  
Train Epoch [26/100] [13/20] Loss: 0.7654 Time: 1.75s  
Train Epoch [26/100] [14/20] Loss: 0.7457 Time: 1.75s  
Train Epoch [26/100] [15/20] Loss: 0.7496 Time: 1.75s  
Train Epoch [26/100] [16/20] Loss: 0.7501 Time: 1.76s  
Train Epoch [26/100] [17/20] Loss: 0.7179 Time: 1.75s  
Train Epoch [26/100] [18/20] Loss: 0.7183 Time: 1.75s  
Train Epoch [26/100] [19/20] Loss: 0.6919 Time: 1.76s  
Final training 26/99 loss: 0.6919 time 38.01s  
Fri Apr 4 07:54:23 2025 Epoch: 27  
Train Epoch [27/100] [0/20] Loss: 0.6904 Time: 4.88s  
Train Epoch [27/100] [1/20] Loss: 0.5950 Time: 1.76s  
Train Epoch [27/100] [2/20] Loss: 0.6338 Time: 1.76s  
Train Epoch [27/100] [3/20] Loss: 0.7249 Time: 1.76s  
Train Epoch [27/100] [4/20] Loss: 0.7799 Time: 1.76s  
Train Epoch [27/100] [5/20] Loss: 0.6857 Time: 1.75s  
Train Epoch [27/100] [6/20] Loss: 0.7013 Time: 1.76s  
Train Epoch [27/100] [7/20] Loss: 0.7141 Time: 1.76s  
Train Epoch [27/100] [8/20] Loss: 0.7131 Time: 1.76s  
Train Epoch [27/100] [9/20] Loss: 0.6963 Time: 1.76s  
Train Epoch [27/100] [10/20] Loss: 0.6827 Time: 1.76s  
Train Epoch [27/100] [11/20] Loss: 0.6772 Time: 1.76s  
Train Epoch [27/100] [12/20] Loss: 0.6534 Time: 1.76s  
Train Epoch [27/100] [13/20] Loss: 0.6511 Time: 1.76s  
Train Epoch [27/100] [14/20] Loss: 0.6238 Time: 1.75s  
Train Epoch [27/100] [15/20] Loss: 0.6420 Time: 1.76s  
Train Epoch [27/100] [16/20] Loss: 0.6621 Time: 1.76s  
Train Epoch [27/100] [17/20] Loss: 0.6723 Time: 1.75s  
Train Epoch [27/100] [18/20] Loss: 0.6514 Time: 1.75s  
Train Epoch [27/100] [19/20] Loss: 0.6689 Time: 1.76s  
Final training 27/99 loss: 0.6689 time 38.29s  
Fri Apr 4 07:55:01 2025 Epoch: 28  
Train Epoch [28/100] [0/20] Loss: 0.8071 Time: 4.72s  
Train Epoch [28/100] [1/20] Loss: 0.6359 Time: 1.79s  
Train Epoch [28/100] [2/20] Loss: 0.7334 Time: 1.78s  
Train Epoch [28/100] [3/20] Loss: 0.7277 Time: 1.76s  
Train Epoch [28/100] [4/20] Loss: 0.7024 Time: 1.76s  
Train Epoch [28/100] [5/20] Loss: 0.6965 Time: 1.75s  
Train Epoch [28/100] [6/20] Loss: 0.6879 Time: 1.75s  
Train Epoch [28/100] [7/20] Loss: 0.7211 Time: 1.76s  
Train Epoch [28/100] [8/20] Loss: 0.6884 Time: 1.76s  
Train Epoch [28/100] [9/20] Loss: 0.7157 Time: 1.75s  
Train Epoch [28/100] [10/20] Loss: 0.6987 Time: 1.75s  
Train Epoch [28/100] [11/20] Loss: 0.7035 Time: 1.76s  
Train Epoch [28/100] [12/20] Loss: 0.6718 Time: 1.76s  
Train Epoch [28/100] [13/20] Loss: 0.6710 Time: 1.76s  
Train Epoch [28/100] [14/20] Loss: 0.6758 Time: 1.76s  
Train Epoch [28/100] [15/20] Loss: 0.6947 Time: 1.75s

Train Epoch [28/100] [16/20] Loss: 0.6990 Time: 1.76s  
Train Epoch [28/100] [17/20] Loss: 0.7007 Time: 1.75s  
Train Epoch [28/100] [18/20] Loss: 0.7095 Time: 1.76s  
Train Epoch [28/100] [19/20] Loss: 0.6877 Time: 1.75s  
Final training 28/99 loss: 0.6877 time 38.20s  
Fri Apr 4 07:55:40 2025 Epoch: 29  
Train Epoch [29/100] [0/20] Loss: 0.6797 Time: 4.65s  
Train Epoch [29/100] [1/20] Loss: 0.8399 Time: 1.77s  
Train Epoch [29/100] [2/20] Loss: 0.7966 Time: 1.76s  
Train Epoch [29/100] [3/20] Loss: 0.7868 Time: 1.76s  
Train Epoch [29/100] [4/20] Loss: 0.7653 Time: 1.76s  
Train Epoch [29/100] [5/20] Loss: 0.7851 Time: 1.76s  
Train Epoch [29/100] [6/20] Loss: 0.7698 Time: 1.76s  
Train Epoch [29/100] [7/20] Loss: 0.6932 Time: 1.75s  
Train Epoch [29/100] [8/20] Loss: 0.6589 Time: 1.75s  
Train Epoch [29/100] [9/20] Loss: 0.6113 Time: 1.76s  
Train Epoch [29/100] [10/20] Loss: 0.6216 Time: 1.76s  
Train Epoch [29/100] [11/20] Loss: 0.6323 Time: 1.76s  
Train Epoch [29/100] [12/20] Loss: 0.6606 Time: 1.75s  
Train Epoch [29/100] [13/20] Loss: 0.6847 Time: 1.75s  
Train Epoch [29/100] [14/20] Loss: 0.7057 Time: 1.76s  
Train Epoch [29/100] [15/20] Loss: 0.6892 Time: 1.75s  
Train Epoch [29/100] [16/20] Loss: 0.7010 Time: 1.75s  
Train Epoch [29/100] [17/20] Loss: 0.6864 Time: 1.76s  
Train Epoch [29/100] [18/20] Loss: 0.6770 Time: 1.76s  
Train Epoch [29/100] [19/20] Loss: 0.6802 Time: 1.76s  
Final training 29/99 loss: 0.6802 time 38.06s  
Val Epoch [29/100] [0/6] Dice TC: 0.0787 Dice WT: 0.3443 Dice ET: 0.0000 Time: 16.96s  
Val Epoch [29/100] [1/6] Dice TC: 0.0001 Dice WT: 0.7715 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [29/100] [2/6] Dice TC: 0.1531 Dice WT: 0.1805 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [29/100] [3/6] Dice TC: 0.0223 Dice WT: 0.2911 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [29/100] [4/6] Dice TC: 0.6400 Dice WT: 0.5821 Dice ET: 0.5041 Time: 14.69s  
Val Epoch [29/100] [5/6] Dice TC: 0.0519 Dice WT: 0.0996 Dice ET: 0.0000 Time: 14.69s  
Final validation stats 29/99 , dice\_tc: 0.051938410848379135 , dice\_wt: 0.09956541657  
447815 , dice\_et: 0.0 , Dice\_Avg: 0.050501275807619095 , time 90.50s  
Fri Apr 4 07:57:48 2025 Epoch: 30  
Train Epoch [30/100] [0/20] Loss: 0.1762 Time: 4.73s  
Train Epoch [30/100] [1/20] Loss: 0.3818 Time: 1.76s  
Train Epoch [30/100] [2/20] Loss: 0.4576 Time: 2.04s  
Train Epoch [30/100] [3/20] Loss: 0.5619 Time: 1.77s  
Train Epoch [30/100] [4/20] Loss: 0.5642 Time: 1.75s  
Train Epoch [30/100] [5/20] Loss: 0.5745 Time: 1.75s  
Train Epoch [30/100] [6/20] Loss: 0.5814 Time: 1.76s  
Train Epoch [30/100] [7/20] Loss: 0.5599 Time: 1.76s  
Train Epoch [30/100] [8/20] Loss: 0.5813 Time: 1.76s  
Train Epoch [30/100] [9/20] Loss: 0.5958 Time: 1.76s  
Train Epoch [30/100] [10/20] Loss: 0.6110 Time: 1.76s  
Train Epoch [30/100] [11/20] Loss: 0.6297 Time: 1.76s  
Train Epoch [30/100] [12/20] Loss: 0.6582 Time: 1.76s  
Train Epoch [30/100] [13/20] Loss: 0.6601 Time: 1.76s  
Train Epoch [30/100] [14/20] Loss: 0.6703 Time: 1.76s  
Train Epoch [30/100] [15/20] Loss: 0.6592 Time: 1.75s  
Train Epoch [30/100] [16/20] Loss: 0.6767 Time: 1.76s  
Train Epoch [30/100] [17/20] Loss: 0.6946 Time: 1.76s  
Train Epoch [30/100] [18/20] Loss: 0.7107 Time: 1.76s  
Train Epoch [30/100] [19/20] Loss: 0.7252 Time: 1.76s  
Final training 30/99 loss: 0.7252 time 38.45s  
Fri Apr 4 07:58:27 2025 Epoch: 31  
Train Epoch [31/100] [0/20] Loss: 0.7613 Time: 4.57s  
Train Epoch [31/100] [1/20] Loss: 0.8632 Time: 1.77s

Train Epoch [31/100] [2/20] Loss: 0.6359 Time: 1.77s  
Train Epoch [31/100] [3/20] Loss: 0.6699 Time: 1.76s  
Train Epoch [31/100] [4/20] Loss: 0.5889 Time: 1.75s  
Train Epoch [31/100] [5/20] Loss: 0.6574 Time: 1.76s  
Train Epoch [31/100] [6/20] Loss: 0.6256 Time: 1.76s  
Train Epoch [31/100] [7/20] Loss: 0.6377 Time: 1.76s  
Train Epoch [31/100] [8/20] Loss: 0.5968 Time: 1.76s  
Train Epoch [31/100] [9/20] Loss: 0.6128 Time: 1.75s  
Train Epoch [31/100] [10/20] Loss: 0.6167 Time: 1.76s  
Train Epoch [31/100] [11/20] Loss: 0.6025 Time: 1.76s  
Train Epoch [31/100] [12/20] Loss: 0.6142 Time: 1.76s  
Train Epoch [31/100] [13/20] Loss: 0.6406 Time: 1.75s  
Train Epoch [31/100] [14/20] Loss: 0.6646 Time: 1.75s  
Train Epoch [31/100] [15/20] Loss: 0.6657 Time: 1.76s  
Train Epoch [31/100] [16/20] Loss: 0.6713 Time: 1.76s  
Train Epoch [31/100] [17/20] Loss: 0.6613 Time: 1.76s  
Train Epoch [31/100] [18/20] Loss: 0.6702 Time: 1.76s  
Train Epoch [31/100] [19/20] Loss: 0.6629 Time: 1.76s  
Final training 31/99 loss: 0.6629 time 38.02s  
Fri Apr 4 07:59:05 2025 Epoch: 32  
Train Epoch [32/100] [0/20] Loss: 0.8116 Time: 4.69s  
Train Epoch [32/100] [1/20] Loss: 0.8147 Time: 1.77s  
Train Epoch [32/100] [2/20] Loss: 0.7094 Time: 1.76s  
Train Epoch [32/100] [3/20] Loss: 0.7808 Time: 1.76s  
Train Epoch [32/100] [4/20] Loss: 0.8117 Time: 1.76s  
Train Epoch [32/100] [5/20] Loss: 0.8093 Time: 1.76s  
Train Epoch [32/100] [6/20] Loss: 0.7281 Time: 1.75s  
Train Epoch [32/100] [7/20] Loss: 0.7267 Time: 1.76s  
Train Epoch [32/100] [8/20] Loss: 0.7010 Time: 1.76s  
Train Epoch [32/100] [9/20] Loss: 0.6908 Time: 1.76s  
Train Epoch [32/100] [10/20] Loss: 0.6549 Time: 1.76s  
Train Epoch [32/100] [11/20] Loss: 0.6836 Time: 1.76s  
Train Epoch [32/100] [12/20] Loss: 0.6606 Time: 1.76s  
Train Epoch [32/100] [13/20] Loss: 0.6620 Time: 1.76s  
Train Epoch [32/100] [14/20] Loss: 0.6588 Time: 1.75s  
Train Epoch [32/100] [15/20] Loss: 0.6575 Time: 1.76s  
Train Epoch [32/100] [16/20] Loss: 0.6637 Time: 1.75s  
Train Epoch [32/100] [17/20] Loss: 0.6536 Time: 1.76s  
Train Epoch [32/100] [18/20] Loss: 0.6570 Time: 1.76s  
Train Epoch [32/100] [19/20] Loss: 0.6578 Time: 1.75s  
Final training 32/99 loss: 0.6578 time 38.12s  
Fri Apr 4 07:59:43 2025 Epoch: 33  
Train Epoch [33/100] [0/20] Loss: 0.7590 Time: 4.59s  
Train Epoch [33/100] [1/20] Loss: 0.6378 Time: 1.77s  
Train Epoch [33/100] [2/20] Loss: 0.6902 Time: 1.76s  
Train Epoch [33/100] [3/20] Loss: 0.7676 Time: 1.75s  
Train Epoch [33/100] [4/20] Loss: 0.7424 Time: 1.75s  
Train Epoch [33/100] [5/20] Loss: 0.7313 Time: 1.76s  
Train Epoch [33/100] [6/20] Loss: 0.7279 Time: 1.76s  
Train Epoch [33/100] [7/20] Loss: 0.7543 Time: 1.76s  
Train Epoch [33/100] [8/20] Loss: 0.6931 Time: 1.75s  
Train Epoch [33/100] [9/20] Loss: 0.6926 Time: 1.75s  
Train Epoch [33/100] [10/20] Loss: 0.6450 Time: 1.75s  
Train Epoch [33/100] [11/20] Loss: 0.6435 Time: 1.75s  
Train Epoch [33/100] [12/20] Loss: 0.6073 Time: 1.76s  
Train Epoch [33/100] [13/20] Loss: 0.6102 Time: 1.76s  
Train Epoch [33/100] [14/20] Loss: 0.6169 Time: 1.76s  
Train Epoch [33/100] [15/20] Loss: 0.6224 Time: 1.76s  
Train Epoch [33/100] [16/20] Loss: 0.6446 Time: 1.75s  
Train Epoch [33/100] [17/20] Loss: 0.6456 Time: 1.75s

Train Epoch [33/100] [18/20] Loss: 0.6443 Time: 1.76s  
Train Epoch [33/100] [19/20] Loss: 0.6575 Time: 1.76s  
Final training 33/99 loss: 0.6575 time 38.03s  
Fri Apr 4 08:00:21 2025 Epoch: 34  
Train Epoch [34/100] [0/20] Loss: 0.5161 Time: 4.69s  
Train Epoch [34/100] [1/20] Loss: 0.5642 Time: 1.76s  
Train Epoch [34/100] [2/20] Loss: 0.7094 Time: 1.76s  
Train Epoch [34/100] [3/20] Loss: 0.7506 Time: 1.77s  
Train Epoch [34/100] [4/20] Loss: 0.6318 Time: 1.75s  
Train Epoch [34/100] [5/20] Loss: 0.6015 Time: 1.75s  
Train Epoch [34/100] [6/20] Loss: 0.6232 Time: 1.75s  
Train Epoch [34/100] [7/20] Loss: 0.6357 Time: 1.75s  
Train Epoch [34/100] [8/20] Loss: 0.6432 Time: 1.75s  
Train Epoch [34/100] [9/20] Loss: 0.6481 Time: 1.75s  
Train Epoch [34/100] [10/20] Loss: 0.6801 Time: 1.75s  
Train Epoch [34/100] [11/20] Loss: 0.7042 Time: 1.76s  
Train Epoch [34/100] [12/20] Loss: 0.7242 Time: 1.75s  
Train Epoch [34/100] [13/20] Loss: 0.6853 Time: 1.75s  
Train Epoch [34/100] [14/20] Loss: 0.6867 Time: 1.75s  
Train Epoch [34/100] [15/20] Loss: 0.6712 Time: 1.75s  
Train Epoch [34/100] [16/20] Loss: 0.6646 Time: 1.75s  
Train Epoch [34/100] [17/20] Loss: 0.6439 Time: 1.75s  
Train Epoch [34/100] [18/20] Loss: 0.6334 Time: 1.76s  
Train Epoch [34/100] [19/20] Loss: 0.6380 Time: 1.75s  
Final training 34/99 loss: 0.6380 time 38.09s  
Fri Apr 4 08:00:59 2025 Epoch: 35  
Train Epoch [35/100] [0/20] Loss: 0.9427 Time: 4.50s  
Train Epoch [35/100] [1/20] Loss: 0.6854 Time: 1.76s  
Train Epoch [35/100] [2/20] Loss: 0.7902 Time: 1.76s  
Train Epoch [35/100] [3/20] Loss: 0.7680 Time: 1.77s  
Train Epoch [35/100] [4/20] Loss: 0.6413 Time: 1.75s  
Train Epoch [35/100] [5/20] Loss: 0.6395 Time: 1.76s  
Train Epoch [35/100] [6/20] Loss: 0.5795 Time: 1.76s  
Train Epoch [35/100] [7/20] Loss: 0.5901 Time: 1.75s  
Train Epoch [35/100] [8/20] Loss: 0.5447 Time: 1.75s  
Train Epoch [35/100] [9/20] Loss: 0.5529 Time: 1.75s  
Train Epoch [35/100] [10/20] Loss: 0.5897 Time: 1.75s  
Train Epoch [35/100] [11/20] Loss: 0.6014 Time: 1.75s  
Train Epoch [35/100] [12/20] Loss: 0.6086 Time: 1.76s  
Train Epoch [35/100] [13/20] Loss: 0.5935 Time: 1.75s  
Train Epoch [35/100] [14/20] Loss: 0.6011 Time: 1.75s  
Train Epoch [35/100] [15/20] Loss: 0.5934 Time: 1.76s  
Train Epoch [35/100] [16/20] Loss: 0.5829 Time: 1.76s  
Train Epoch [35/100] [17/20] Loss: 0.5872 Time: 1.75s  
Train Epoch [35/100] [18/20] Loss: 0.6017 Time: 1.75s  
Train Epoch [35/100] [19/20] Loss: 0.5959 Time: 1.75s  
Final training 35/99 loss: 0.5959 time 37.91s  
Fri Apr 4 08:01:37 2025 Epoch: 36  
Train Epoch [36/100] [0/20] Loss: 0.1571 Time: 4.57s  
Train Epoch [36/100] [1/20] Loss: 0.4332 Time: 1.77s  
Train Epoch [36/100] [2/20] Loss: 0.6222 Time: 1.75s  
Train Epoch [36/100] [3/20] Loss: 0.5417 Time: 1.75s  
Train Epoch [36/100] [4/20] Loss: 0.4769 Time: 1.75s  
Train Epoch [36/100] [5/20] Loss: 0.5203 Time: 1.76s  
Train Epoch [36/100] [6/20] Loss: 0.4915 Time: 1.75s  
Train Epoch [36/100] [7/20] Loss: 0.5161 Time: 1.75s  
Train Epoch [36/100] [8/20] Loss: 0.5232 Time: 1.75s  
Train Epoch [36/100] [9/20] Loss: 0.5709 Time: 1.76s  
Train Epoch [36/100] [10/20] Loss: 0.5813 Time: 1.76s  
Train Epoch [36/100] [11/20] Loss: 0.5836 Time: 1.75s

Train Epoch [36/100] [12/20] Loss: 0.5731 Time: 1.76s  
Train Epoch [36/100] [13/20] Loss: 0.6036 Time: 1.76s  
Train Epoch [36/100] [14/20] Loss: 0.6154 Time: 1.75s  
Train Epoch [36/100] [15/20] Loss: 0.6094 Time: 1.75s  
Train Epoch [36/100] [16/20] Loss: 0.6019 Time: 1.76s  
Train Epoch [36/100] [17/20] Loss: 0.6060 Time: 1.76s  
Train Epoch [36/100] [18/20] Loss: 0.6130 Time: 1.75s  
Train Epoch [36/100] [19/20] Loss: 0.6304 Time: 1.75s  
Final training 36/99 loss: 0.6304 time 37.98s  
Fri Apr 4 08:02:15 2025 Epoch: 37  
Train Epoch [37/100] [0/20] Loss: 0.6697 Time: 4.78s  
Train Epoch [37/100] [1/20] Loss: 0.4873 Time: 1.76s  
Train Epoch [37/100] [2/20] Loss: 0.5809 Time: 1.78s  
Train Epoch [37/100] [3/20] Loss: 0.6121 Time: 1.76s  
Train Epoch [37/100] [4/20] Loss: 0.6754 Time: 1.76s  
Train Epoch [37/100] [5/20] Loss: 0.6318 Time: 1.75s  
Train Epoch [37/100] [6/20] Loss: 0.6844 Time: 1.76s  
Train Epoch [37/100] [7/20] Loss: 0.7239 Time: 1.76s  
Train Epoch [37/100] [8/20] Loss: 0.7295 Time: 1.76s  
Train Epoch [37/100] [9/20] Loss: 0.6984 Time: 1.75s  
Train Epoch [37/100] [10/20] Loss: 0.7033 Time: 1.76s  
Train Epoch [37/100] [11/20] Loss: 0.6786 Time: 1.76s  
Train Epoch [37/100] [12/20] Loss: 0.6808 Time: 1.76s  
Train Epoch [37/100] [13/20] Loss: 0.6803 Time: 1.76s  
Train Epoch [37/100] [14/20] Loss: 0.6808 Time: 1.76s  
Train Epoch [37/100] [15/20] Loss: 0.6795 Time: 1.76s  
Train Epoch [37/100] [16/20] Loss: 0.6532 Time: 1.76s  
Train Epoch [37/100] [17/20] Loss: 0.6359 Time: 1.76s  
Train Epoch [37/100] [18/20] Loss: 0.6509 Time: 1.76s  
Train Epoch [37/100] [19/20] Loss: 0.6261 Time: 1.76s  
Final training 37/99 loss: 0.6261 time 38.20s  
Fri Apr 4 08:02:53 2025 Epoch: 38  
Train Epoch [38/100] [0/20] Loss: 0.7730 Time: 4.75s  
Train Epoch [38/100] [1/20] Loss: 0.6679 Time: 1.76s  
Train Epoch [38/100] [2/20] Loss: 0.5843 Time: 1.76s  
Train Epoch [38/100] [3/20] Loss: 0.6180 Time: 1.75s  
Train Epoch [38/100] [4/20] Loss: 0.6944 Time: 1.76s  
Train Epoch [38/100] [5/20] Loss: 0.6961 Time: 1.76s  
Train Epoch [38/100] [6/20] Loss: 0.6203 Time: 1.75s  
Train Epoch [38/100] [7/20] Loss: 0.6273 Time: 1.75s  
Train Epoch [38/100] [8/20] Loss: 0.6375 Time: 1.76s  
Train Epoch [38/100] [9/20] Loss: 0.6369 Time: 1.76s  
Train Epoch [38/100] [10/20] Loss: 0.6283 Time: 1.75s  
Train Epoch [38/100] [11/20] Loss: 0.6352 Time: 1.76s  
Train Epoch [38/100] [12/20] Loss: 0.6632 Time: 1.76s  
Train Epoch [38/100] [13/20] Loss: 0.6545 Time: 1.76s  
Train Epoch [38/100] [14/20] Loss: 0.6517 Time: 1.75s  
Train Epoch [38/100] [15/20] Loss: 0.6512 Time: 1.76s  
Train Epoch [38/100] [16/20] Loss: 0.6235 Time: 1.75s  
Train Epoch [38/100] [17/20] Loss: 0.6194 Time: 1.76s  
Train Epoch [38/100] [18/20] Loss: 0.6153 Time: 1.76s  
Train Epoch [38/100] [19/20] Loss: 0.6342 Time: 1.76s  
Final training 38/99 loss: 0.6342 time 38.20s  
Fri Apr 4 08:03:31 2025 Epoch: 39  
Train Epoch [39/100] [0/20] Loss: 0.6633 Time: 4.52s  
Train Epoch [39/100] [1/20] Loss: 0.6385 Time: 1.76s  
Train Epoch [39/100] [2/20] Loss: 0.6784 Time: 1.76s  
Train Epoch [39/100] [3/20] Loss: 0.7588 Time: 1.76s  
Train Epoch [39/100] [4/20] Loss: 0.7179 Time: 1.75s  
Train Epoch [39/100] [5/20] Loss: 0.6304 Time: 1.76s

Train Epoch [39/100] [6/20] Loss: 0.6417 Time: 1.76s  
Train Epoch [39/100] [7/20] Loss: 0.6265 Time: 1.76s  
Train Epoch [39/100] [8/20] Loss: 0.6680 Time: 1.75s  
Train Epoch [39/100] [9/20] Loss: 0.6585 Time: 1.75s  
Train Epoch [39/100] [10/20] Loss: 0.6895 Time: 1.76s  
Train Epoch [39/100] [11/20] Loss: 0.6981 Time: 1.76s  
Train Epoch [39/100] [12/20] Loss: 0.6661 Time: 1.76s  
Train Epoch [39/100] [13/20] Loss: 0.6509 Time: 1.76s  
Train Epoch [39/100] [14/20] Loss: 0.6552 Time: 1.76s  
Train Epoch [39/100] [15/20] Loss: 0.6732 Time: 1.75s  
Train Epoch [39/100] [16/20] Loss: 0.6742 Time: 1.76s  
Train Epoch [39/100] [17/20] Loss: 0.6605 Time: 1.76s  
Train Epoch [39/100] [18/20] Loss: 0.6784 Time: 1.76s  
Train Epoch [39/100] [19/20] Loss: 0.6936 Time: 1.76s  
Final training 39/99 loss: 0.6936 time 37.96s  
Val Epoch [39/100] [0/6] Dice TC: 0.0212 Dice WT: 0.2064 Dice ET: 0.0000 Time: 16.87s  
Val Epoch [39/100] [1/6] Dice TC: 0.0001 Dice WT: 0.8635 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [39/100] [2/6] Dice TC: 0.6705 Dice WT: 0.6475 Dice ET: 0.0004 Time: 14.70s  
Val Epoch [39/100] [3/6] Dice TC: 0.0670 Dice WT: 0.6744 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [39/100] [4/6] Dice TC: 0.7552 Dice WT: 0.6846 Dice ET: 0.6703 Time: 14.69s  
Val Epoch [39/100] [5/6] Dice TC: 0.0829 Dice WT: 0.1409 Dice ET: 0.0000 Time: 14.70s  
Final validation stats 39/99 , dice\_tc: 0.08291393518447876 , dice\_wt: 0.140878722071  
64764 , dice\_et: 0.0 , Dice\_Avg: 0.0745975524187088 , time 90.40s  
Fri Apr 4 08:05:40 2025 Epoch: 40  
Train Epoch [40/100] [0/20] Loss: 0.7865 Time: 4.72s  
Train Epoch [40/100] [1/20] Loss: 0.7392 Time: 1.77s  
Train Epoch [40/100] [2/20] Loss: 0.7195 Time: 2.04s  
Train Epoch [40/100] [3/20] Loss: 0.6526 Time: 1.77s  
Train Epoch [40/100] [4/20] Loss: 0.6563 Time: 1.75s  
Train Epoch [40/100] [5/20] Loss: 0.6540 Time: 1.76s  
Train Epoch [40/100] [6/20] Loss: 0.5909 Time: 1.75s  
Train Epoch [40/100] [7/20] Loss: 0.6046 Time: 1.76s  
Train Epoch [40/100] [8/20] Loss: 0.6485 Time: 1.75s  
Train Epoch [40/100] [9/20] Loss: 0.6006 Time: 1.76s  
Train Epoch [40/100] [10/20] Loss: 0.6369 Time: 1.76s  
Train Epoch [40/100] [11/20] Loss: 0.6215 Time: 1.78s  
Train Epoch [40/100] [12/20] Loss: 0.6164 Time: 1.76s  
Train Epoch [40/100] [13/20] Loss: 0.5825 Time: 1.76s  
Train Epoch [40/100] [14/20] Loss: 0.6052 Time: 1.75s  
Train Epoch [40/100] [15/20] Loss: 0.6263 Time: 1.76s  
Train Epoch [40/100] [16/20] Loss: 0.6264 Time: 1.76s  
Train Epoch [40/100] [17/20] Loss: 0.6166 Time: 1.76s  
Train Epoch [40/100] [18/20] Loss: 0.6325 Time: 1.75s  
Train Epoch [40/100] [19/20] Loss: 0.6361 Time: 1.76s  
Final training 40/99 loss: 0.6361 time 38.47s  
Fri Apr 4 08:06:18 2025 Epoch: 41  
Train Epoch [41/100] [0/20] Loss: 0.7123 Time: 4.71s  
Train Epoch [41/100] [1/20] Loss: 0.6452 Time: 1.78s  
Train Epoch [41/100] [2/20] Loss: 0.5669 Time: 1.79s  
Train Epoch [41/100] [3/20] Loss: 0.5285 Time: 1.77s  
Train Epoch [41/100] [4/20] Loss: 0.5684 Time: 1.75s  
Train Epoch [41/100] [5/20] Loss: 0.5599 Time: 1.76s  
Train Epoch [41/100] [6/20] Loss: 0.5827 Time: 1.76s  
Train Epoch [41/100] [7/20] Loss: 0.5924 Time: 1.76s  
Train Epoch [41/100] [8/20] Loss: 0.5717 Time: 1.76s  
Train Epoch [41/100] [9/20] Loss: 0.6145 Time: 1.76s  
Train Epoch [41/100] [10/20] Loss: 0.6495 Time: 1.76s  
Train Epoch [41/100] [11/20] Loss: 0.6121 Time: 1.76s  
Train Epoch [41/100] [12/20] Loss: 0.6137 Time: 1.76s  
Train Epoch [41/100] [13/20] Loss: 0.5822 Time: 1.76s

Train Epoch [41/100] [14/20] Loss: 0.5943 Time: 1.76s  
Train Epoch [41/100] [15/20] Loss: 0.5995 Time: 1.76s  
Train Epoch [41/100] [16/20] Loss: 0.6038 Time: 1.76s  
Train Epoch [41/100] [17/20] Loss: 0.6081 Time: 1.76s  
Train Epoch [41/100] [18/20] Loss: 0.6120 Time: 1.76s  
Train Epoch [41/100] [19/20] Loss: 0.6285 Time: 1.75s  
Final training 41/99 loss: 0.6285 time 38.22s  
Fri Apr 4 08:06:56 2025 Epoch: 42  
Train Epoch [42/100] [0/20] Loss: 0.7563 Time: 4.62s  
Train Epoch [42/100] [1/20] Loss: 0.8781 Time: 1.76s  
Train Epoch [42/100] [2/20] Loss: 0.7373 Time: 1.76s  
Train Epoch [42/100] [3/20] Loss: 0.7657 Time: 1.76s  
Train Epoch [42/100] [4/20] Loss: 0.7452 Time: 1.76s  
Train Epoch [42/100] [5/20] Loss: 0.7580 Time: 1.75s  
Train Epoch [42/100] [6/20] Loss: 0.7487 Time: 1.76s  
Train Epoch [42/100] [7/20] Loss: 0.7375 Time: 1.76s  
Train Epoch [42/100] [8/20] Loss: 0.7667 Time: 1.76s  
Train Epoch [42/100] [9/20] Loss: 0.7847 Time: 1.76s  
Train Epoch [42/100] [10/20] Loss: 0.7921 Time: 1.76s  
Train Epoch [42/100] [11/20] Loss: 0.7852 Time: 1.76s  
Train Epoch [42/100] [12/20] Loss: 0.7687 Time: 1.76s  
Train Epoch [42/100] [13/20] Loss: 0.7325 Time: 1.76s  
Train Epoch [42/100] [14/20] Loss: 0.6954 Time: 1.76s  
Train Epoch [42/100] [15/20] Loss: 0.7006 Time: 1.76s  
Train Epoch [42/100] [16/20] Loss: 0.7107 Time: 1.75s  
Train Epoch [42/100] [17/20] Loss: 0.6991 Time: 1.76s  
Train Epoch [42/100] [18/20] Loss: 0.6880 Time: 1.76s  
Train Epoch [42/100] [19/20] Loss: 0.7036 Time: 1.76s  
Final training 42/99 loss: 0.7036 time 38.04s  
Fri Apr 4 08:07:34 2025 Epoch: 43  
Train Epoch [43/100] [0/20] Loss: 1.0000 Time: 4.53s  
Train Epoch [43/100] [1/20] Loss: 0.7505 Time: 1.77s  
Train Epoch [43/100] [2/20] Loss: 0.5584 Time: 1.76s  
Train Epoch [43/100] [3/20] Loss: 0.6688 Time: 1.77s  
Train Epoch [43/100] [4/20] Loss: 0.6754 Time: 1.76s  
Train Epoch [43/100] [5/20] Loss: 0.6941 Time: 1.76s  
Train Epoch [43/100] [6/20] Loss: 0.6974 Time: 1.76s  
Train Epoch [43/100] [7/20] Loss: 0.7352 Time: 1.76s  
Train Epoch [43/100] [8/20] Loss: 0.7454 Time: 1.76s  
Train Epoch [43/100] [9/20] Loss: 0.7154 Time: 1.76s  
Train Epoch [43/100] [10/20] Loss: 0.7382 Time: 1.76s  
Train Epoch [43/100] [11/20] Loss: 0.7600 Time: 1.76s  
Train Epoch [43/100] [12/20] Loss: 0.7332 Time: 1.76s  
Train Epoch [43/100] [13/20] Loss: 0.7523 Time: 1.76s  
Train Epoch [43/100] [14/20] Loss: 0.7120 Time: 1.76s  
Train Epoch [43/100] [15/20] Loss: 0.7110 Time: 1.76s  
Train Epoch [43/100] [16/20] Loss: 0.7220 Time: 1.76s  
Train Epoch [43/100] [17/20] Loss: 0.7186 Time: 1.76s  
Train Epoch [43/100] [18/20] Loss: 0.7096 Time: 1.76s  
Train Epoch [43/100] [19/20] Loss: 0.7055 Time: 1.76s  
Final training 43/99 loss: 0.7055 time 37.99s  
Fri Apr 4 08:08:12 2025 Epoch: 44  
Train Epoch [44/100] [0/20] Loss: 0.1406 Time: 4.55s  
Train Epoch [44/100] [1/20] Loss: 0.3335 Time: 1.76s  
Train Epoch [44/100] [2/20] Loss: 0.3049 Time: 1.76s  
Train Epoch [44/100] [3/20] Loss: 0.3898 Time: 1.76s  
Train Epoch [44/100] [4/20] Loss: 0.4591 Time: 1.76s  
Train Epoch [44/100] [5/20] Loss: 0.4854 Time: 1.76s  
Train Epoch [44/100] [6/20] Loss: 0.4890 Time: 1.76s  
Train Epoch [44/100] [7/20] Loss: 0.5529 Time: 1.75s

Train Epoch [44/100] [8/20] Loss: 0.5609 Time: 1.76s  
Train Epoch [44/100] [9/20] Loss: 0.5627 Time: 1.76s  
Train Epoch [44/100] [10/20] Loss: 0.5888 Time: 1.76s  
Train Epoch [44/100] [11/20] Loss: 0.6230 Time: 1.76s  
Train Epoch [44/100] [12/20] Loss: 0.6383 Time: 1.76s  
Train Epoch [44/100] [13/20] Loss: 0.6467 Time: 1.76s  
Train Epoch [44/100] [14/20] Loss: 0.6287 Time: 1.75s  
Train Epoch [44/100] [15/20] Loss: 0.6462 Time: 1.75s  
Train Epoch [44/100] [16/20] Loss: 0.6554 Time: 1.75s  
Train Epoch [44/100] [17/20] Loss: 0.6366 Time: 1.76s  
Train Epoch [44/100] [18/20] Loss: 0.6279 Time: 1.76s  
Train Epoch [44/100] [19/20] Loss: 0.6325 Time: 1.75s  
Final training 44/99 loss: 0.6325 time 37.97s

Fri Apr 4 08:08:50 2025 Epoch: 45

Train Epoch [45/100] [0/20] Loss: 0.1553 Time: 4.79s  
Train Epoch [45/100] [1/20] Loss: 0.5445 Time: 1.77s  
Train Epoch [45/100] [2/20] Loss: 0.6045 Time: 1.76s  
Train Epoch [45/100] [3/20] Loss: 0.6354 Time: 1.76s  
Train Epoch [45/100] [4/20] Loss: 0.6326 Time: 1.75s  
Train Epoch [45/100] [5/20] Loss: 0.6938 Time: 1.76s  
Train Epoch [45/100] [6/20] Loss: 0.7247 Time: 1.75s  
Train Epoch [45/100] [7/20] Loss: 0.7591 Time: 1.75s  
Train Epoch [45/100] [8/20] Loss: 0.7424 Time: 1.75s  
Train Epoch [45/100] [9/20] Loss: 0.7367 Time: 1.76s  
Train Epoch [45/100] [10/20] Loss: 0.7136 Time: 1.75s  
Train Epoch [45/100] [11/20] Loss: 0.7095 Time: 1.76s  
Train Epoch [45/100] [12/20] Loss: 0.7059 Time: 1.75s  
Train Epoch [45/100] [13/20] Loss: 0.7063 Time: 1.75s  
Train Epoch [45/100] [14/20] Loss: 0.7056 Time: 1.75s  
Train Epoch [45/100] [15/20] Loss: 0.6893 Time: 1.75s  
Train Epoch [45/100] [16/20] Loss: 0.6876 Time: 1.75s  
Train Epoch [45/100] [17/20] Loss: 0.7049 Time: 1.76s  
Train Epoch [45/100] [18/20] Loss: 0.6918 Time: 1.75s  
Train Epoch [45/100] [19/20] Loss: 0.7072 Time: 1.75s  
Final training 45/99 loss: 0.7072 time 38.20s

Fri Apr 4 08:09:28 2025 Epoch: 46

Train Epoch [46/100] [0/20] Loss: 0.7319 Time: 4.70s  
Train Epoch [46/100] [1/20] Loss: 0.5465 Time: 1.77s  
Train Epoch [46/100] [2/20] Loss: 0.5920 Time: 1.75s  
Train Epoch [46/100] [3/20] Loss: 0.6302 Time: 1.76s  
Train Epoch [46/100] [4/20] Loss: 0.6481 Time: 1.75s  
Train Epoch [46/100] [5/20] Loss: 0.6333 Time: 1.75s  
Train Epoch [46/100] [6/20] Loss: 0.6857 Time: 1.75s  
Train Epoch [46/100] [7/20] Loss: 0.6901 Time: 1.75s  
Train Epoch [46/100] [8/20] Loss: 0.7120 Time: 1.75s  
Train Epoch [46/100] [9/20] Loss: 0.6930 Time: 1.76s  
Train Epoch [46/100] [10/20] Loss: 0.7040 Time: 1.76s  
Train Epoch [46/100] [11/20] Loss: 0.7097 Time: 1.75s  
Train Epoch [46/100] [12/20] Loss: 0.7252 Time: 1.75s  
Train Epoch [46/100] [13/20] Loss: 0.7170 Time: 1.75s  
Train Epoch [46/100] [14/20] Loss: 0.6997 Time: 1.75s  
Train Epoch [46/100] [15/20] Loss: 0.6963 Time: 1.76s  
Train Epoch [46/100] [16/20] Loss: 0.6950 Time: 1.75s  
Train Epoch [46/100] [17/20] Loss: 0.6984 Time: 1.75s  
Train Epoch [46/100] [18/20] Loss: 0.6702 Time: 1.75s  
Train Epoch [46/100] [19/20] Loss: 0.6513 Time: 1.75s  
Final training 46/99 loss: 0.6513 time 38.12s

Fri Apr 4 08:10:07 2025 Epoch: 47

Train Epoch [47/100] [0/20] Loss: 0.7080 Time: 4.65s  
Train Epoch [47/100] [1/20] Loss: 0.8363 Time: 1.76s

Train Epoch [47/100] [2/20] Loss: 0.6860 Time: 1.76s  
Train Epoch [47/100] [3/20] Loss: 0.7645 Time: 1.75s  
Train Epoch [47/100] [4/20] Loss: 0.7856 Time: 1.75s  
Train Epoch [47/100] [5/20] Loss: 0.7726 Time: 1.75s  
Train Epoch [47/100] [6/20] Loss: 0.6846 Time: 1.75s  
Train Epoch [47/100] [7/20] Loss: 0.7194 Time: 1.75s  
Train Epoch [47/100] [8/20] Loss: 0.6859 Time: 1.76s  
Train Epoch [47/100] [9/20] Loss: 0.6378 Time: 1.76s  
Train Epoch [47/100] [10/20] Loss: 0.6419 Time: 1.75s  
Train Epoch [47/100] [11/20] Loss: 0.6408 Time: 1.75s  
Train Epoch [47/100] [12/20] Loss: 0.6466 Time: 1.75s  
Train Epoch [47/100] [13/20] Loss: 0.6395 Time: 1.75s  
Train Epoch [47/100] [14/20] Loss: 0.6081 Time: 1.75s  
Train Epoch [47/100] [15/20] Loss: 0.5966 Time: 1.76s  
Train Epoch [47/100] [16/20] Loss: 0.5964 Time: 1.76s  
Train Epoch [47/100] [17/20] Loss: 0.5990 Time: 1.76s  
Train Epoch [47/100] [18/20] Loss: 0.6075 Time: 1.75s  
Train Epoch [47/100] [19/20] Loss: 0.6134 Time: 1.76s  
Final training 47/99 loss: 0.6134 time 38.05s  
Fri Apr 4 08:10:45 2025 Epoch: 48  
Train Epoch [48/100] [0/20] Loss: 0.7270 Time: 4.86s  
Train Epoch [48/100] [1/20] Loss: 0.6495 Time: 1.76s  
Train Epoch [48/100] [2/20] Loss: 0.5611 Time: 1.76s  
Train Epoch [48/100] [3/20] Loss: 0.6708 Time: 1.76s  
Train Epoch [48/100] [4/20] Loss: 0.7287 Time: 1.75s  
Train Epoch [48/100] [5/20] Loss: 0.7259 Time: 1.75s  
Train Epoch [48/100] [6/20] Loss: 0.6504 Time: 1.76s  
Train Epoch [48/100] [7/20] Loss: 0.6411 Time: 1.76s  
Train Epoch [48/100] [8/20] Loss: 0.6501 Time: 1.75s  
Train Epoch [48/100] [9/20] Loss: 0.6094 Time: 1.75s  
Train Epoch [48/100] [10/20] Loss: 0.6146 Time: 1.76s  
Train Epoch [48/100] [11/20] Loss: 0.6115 Time: 1.76s  
Train Epoch [48/100] [12/20] Loss: 0.6041 Time: 1.75s  
Train Epoch [48/100] [13/20] Loss: 0.6150 Time: 1.75s  
Train Epoch [48/100] [14/20] Loss: 0.6182 Time: 1.76s  
Train Epoch [48/100] [15/20] Loss: 0.6203 Time: 1.76s  
Train Epoch [48/100] [16/20] Loss: 0.6116 Time: 1.75s  
Train Epoch [48/100] [17/20] Loss: 0.6308 Time: 1.76s  
Train Epoch [48/100] [18/20] Loss: 0.6063 Time: 1.76s  
Train Epoch [48/100] [19/20] Loss: 0.6095 Time: 1.76s  
Final training 48/99 loss: 0.6095 time 38.28s  
Fri Apr 4 08:11:23 2025 Epoch: 49  
Train Epoch [49/100] [0/20] Loss: 0.7042 Time: 4.94s  
Train Epoch [49/100] [1/20] Loss: 0.6870 Time: 1.76s  
Train Epoch [49/100] [2/20] Loss: 0.7913 Time: 1.76s  
Train Epoch [49/100] [3/20] Loss: 0.6912 Time: 1.76s  
Train Epoch [49/100] [4/20] Loss: 0.6278 Time: 1.75s  
Train Epoch [49/100] [5/20] Loss: 0.5441 Time: 1.76s  
Train Epoch [49/100] [6/20] Loss: 0.4862 Time: 1.76s  
Train Epoch [49/100] [7/20] Loss: 0.4584 Time: 1.76s  
Train Epoch [49/100] [8/20] Loss: 0.5180 Time: 1.76s  
Train Epoch [49/100] [9/20] Loss: 0.5337 Time: 1.75s  
Train Epoch [49/100] [10/20] Loss: 0.5729 Time: 1.76s  
Train Epoch [49/100] [11/20] Loss: 0.5946 Time: 1.76s  
Train Epoch [49/100] [12/20] Loss: 0.6058 Time: 1.76s  
Train Epoch [49/100] [13/20] Loss: 0.5936 Time: 1.76s  
Train Epoch [49/100] [14/20] Loss: 0.6089 Time: 1.76s  
Train Epoch [49/100] [15/20] Loss: 0.6033 Time: 1.76s  
Train Epoch [49/100] [16/20] Loss: 0.6266 Time: 1.76s  
Train Epoch [49/100] [17/20] Loss: 0.6338 Time: 1.75s

Train Epoch [49/100] [18/20] Loss: 0.6286 Time: 1.76s  
Train Epoch [49/100] [19/20] Loss: 0.6318 Time: 1.76s  
Final training 49/99 loss: 0.6318 time 38.38s  
Val Epoch [49/100] [0/6] Dice TC: 0.0142 Dice WT: 0.1010 Dice ET: 0.0000 Time: 16.89s  
Val Epoch [49/100] [1/6] Dice TC: 0.0000 Dice WT: 0.9077 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [49/100] [2/6] Dice TC: 0.7176 Dice WT: 0.6124 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [49/100] [3/6] Dice TC: 0.0883 Dice WT: 0.8423 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [49/100] [4/6] Dice TC: 0.8554 Dice WT: 0.8558 Dice ET: 0.8515 Time: 14.69s  
Val Epoch [49/100] [5/6] Dice TC: 0.2474 Dice WT: 0.2421 Dice ET: 0.0000 Time: 14.70s  
Final validation stats 49/99 , dice\_tc: 0.24735453724861145 , dice\_wt: 0.242095589637  
75635 , dice\_et: 0.0 , Dice\_Avg: 0.16315004229545593 , time 90.43s  
New best model: 0.076930 --> 0.163150  
Checkpoint saved: ./checkpoints/best\_model.pth  
Fri Apr 4 08:13:32 2025 Epoch: 50  
Train Epoch [50/100] [0/20] Loss: 0.7324 Time: 4.68s  
Train Epoch [50/100] [1/20] Loss: 0.5532 Time: 1.76s  
Train Epoch [50/100] [2/20] Loss: 0.5507 Time: 1.76s  
Train Epoch [50/100] [3/20] Loss: 0.4538 Time: 1.76s  
Train Epoch [50/100] [4/20] Loss: 0.5630 Time: 1.75s  
Train Epoch [50/100] [5/20] Loss: 0.5932 Time: 1.76s  
Train Epoch [50/100] [6/20] Loss: 0.6165 Time: 1.76s  
Train Epoch [50/100] [7/20] Loss: 0.5883 Time: 1.75s  
Train Epoch [50/100] [8/20] Loss: 0.5805 Time: 1.76s  
Train Epoch [50/100] [9/20] Loss: 0.5890 Time: 1.76s  
Train Epoch [50/100] [10/20] Loss: 0.6243 Time: 1.76s  
Train Epoch [50/100] [11/20] Loss: 0.6268 Time: 1.75s  
Train Epoch [50/100] [12/20] Loss: 0.6335 Time: 1.75s  
Train Epoch [50/100] [13/20] Loss: 0.6518 Time: 1.76s  
Train Epoch [50/100] [14/20] Loss: 0.6387 Time: 1.75s  
Train Epoch [50/100] [15/20] Loss: 0.6235 Time: 1.75s  
Train Epoch [50/100] [16/20] Loss: 0.6439 Time: 1.76s  
Train Epoch [50/100] [17/20] Loss: 0.6476 Time: 1.76s  
Train Epoch [50/100] [18/20] Loss: 0.6661 Time: 1.76s  
Train Epoch [50/100] [19/20] Loss: 0.6629 Time: 1.75s  
Final training 50/99 loss: 0.6629 time 38.11s  
Fri Apr 4 08:14:10 2025 Epoch: 51  
Train Epoch [51/100] [0/20] Loss: 0.6625 Time: 4.78s  
Train Epoch [51/100] [1/20] Loss: 0.6495 Time: 1.77s  
Train Epoch [51/100] [2/20] Loss: 0.6286 Time: 1.78s  
Train Epoch [51/100] [3/20] Loss: 0.6981 Time: 1.76s  
Train Epoch [51/100] [4/20] Loss: 0.7579 Time: 1.75s  
Train Epoch [51/100] [5/20] Loss: 0.6891 Time: 1.76s  
Train Epoch [51/100] [6/20] Loss: 0.6113 Time: 1.75s  
Train Epoch [51/100] [7/20] Loss: 0.6077 Time: 1.75s  
Train Epoch [51/100] [8/20] Loss: 0.6289 Time: 1.75s  
Train Epoch [51/100] [9/20] Loss: 0.6328 Time: 1.75s  
Train Epoch [51/100] [10/20] Loss: 0.6355 Time: 1.75s  
Train Epoch [51/100] [11/20] Loss: 0.6659 Time: 1.76s  
Train Epoch [51/100] [12/20] Loss: 0.6372 Time: 1.75s  
Train Epoch [51/100] [13/20] Loss: 0.6453 Time: 1.76s  
Train Epoch [51/100] [14/20] Loss: 0.6154 Time: 1.76s  
Train Epoch [51/100] [15/20] Loss: 0.6083 Time: 1.76s  
Train Epoch [51/100] [16/20] Loss: 0.6141 Time: 1.75s  
Train Epoch [51/100] [17/20] Loss: 0.6189 Time: 1.76s  
Train Epoch [51/100] [18/20] Loss: 0.6233 Time: 1.76s  
Train Epoch [51/100] [19/20] Loss: 0.6246 Time: 1.76s  
Final training 51/99 loss: 0.6246 time 38.22s  
Fri Apr 4 08:14:49 2025 Epoch: 52  
Train Epoch [52/100] [0/20] Loss: 0.7149 Time: 4.72s  
Train Epoch [52/100] [1/20] Loss: 0.7083 Time: 1.80s

Train Epoch [52/100] [2/20] Loss: 0.8055 Time: 1.76s  
Train Epoch [52/100] [3/20] Loss: 0.7399 Time: 1.75s  
Train Epoch [52/100] [4/20] Loss: 0.7676 Time: 1.75s  
Train Epoch [52/100] [5/20] Loss: 0.8063 Time: 1.75s  
Train Epoch [52/100] [6/20] Loss: 0.7278 Time: 1.75s  
Train Epoch [52/100] [7/20] Loss: 0.7361 Time: 1.75s  
Train Epoch [52/100] [8/20] Loss: 0.7328 Time: 1.76s  
Train Epoch [52/100] [9/20] Loss: 0.7254 Time: 1.76s  
Train Epoch [52/100] [10/20] Loss: 0.7109 Time: 1.76s  
Train Epoch [52/100] [11/20] Loss: 0.6821 Time: 1.75s  
Train Epoch [52/100] [12/20] Loss: 0.6788 Time: 1.76s  
Train Epoch [52/100] [13/20] Loss: 0.6584 Time: 1.75s  
Train Epoch [52/100] [14/20] Loss: 0.6308 Time: 1.76s  
Train Epoch [52/100] [15/20] Loss: 0.6388 Time: 1.75s  
Train Epoch [52/100] [16/20] Loss: 0.6601 Time: 1.76s  
Train Epoch [52/100] [17/20] Loss: 0.6608 Time: 1.76s  
Train Epoch [52/100] [18/20] Loss: 0.6786 Time: 1.76s  
Train Epoch [52/100] [19/20] Loss: 0.6725 Time: 1.76s  
Final training 52/99 loss: 0.6725 time 38.18s  
Fri Apr 4 08:15:27 2025 Epoch: 53  
Train Epoch [53/100] [0/20] Loss: 0.9999 Time: 4.77s  
Train Epoch [53/100] [1/20] Loss: 0.7112 Time: 1.76s  
Train Epoch [53/100] [2/20] Loss: 0.6963 Time: 1.76s  
Train Epoch [53/100] [3/20] Loss: 0.6986 Time: 1.76s  
Train Epoch [53/100] [4/20] Loss: 0.6764 Time: 1.76s  
Train Epoch [53/100] [5/20] Loss: 0.6677 Time: 1.75s  
Train Epoch [53/100] [6/20] Loss: 0.6754 Time: 1.75s  
Train Epoch [53/100] [7/20] Loss: 0.6137 Time: 1.75s  
Train Epoch [53/100] [8/20] Loss: 0.6438 Time: 1.76s  
Train Epoch [53/100] [9/20] Loss: 0.6514 Time: 1.76s  
Train Epoch [53/100] [10/20] Loss: 0.6557 Time: 1.76s  
Train Epoch [53/100] [11/20] Loss: 0.6786 Time: 1.75s  
Train Epoch [53/100] [12/20] Loss: 0.6780 Time: 1.75s  
Train Epoch [53/100] [13/20] Loss: 0.6835 Time: 1.76s  
Train Epoch [53/100] [14/20] Loss: 0.6824 Time: 1.76s  
Train Epoch [53/100] [15/20] Loss: 0.6953 Time: 1.76s  
Train Epoch [53/100] [16/20] Loss: 0.6829 Time: 1.75s  
Train Epoch [53/100] [17/20] Loss: 0.6733 Time: 1.75s  
Train Epoch [53/100] [18/20] Loss: 0.6905 Time: 1.76s  
Train Epoch [53/100] [19/20] Loss: 0.6756 Time: 1.76s  
Final training 53/99 loss: 0.6756 time 38.17s  
Fri Apr 4 08:16:05 2025 Epoch: 54  
Train Epoch [54/100] [0/20] Loss: 0.8553 Time: 4.79s  
Train Epoch [54/100] [1/20] Loss: 0.9277 Time: 1.78s  
Train Epoch [54/100] [2/20] Loss: 0.7729 Time: 1.76s  
Train Epoch [54/100] [3/20] Loss: 0.7040 Time: 1.76s  
Train Epoch [54/100] [4/20] Loss: 0.6968 Time: 1.76s  
Train Epoch [54/100] [5/20] Loss: 0.6817 Time: 1.76s  
Train Epoch [54/100] [6/20] Loss: 0.6652 Time: 1.76s  
Train Epoch [54/100] [7/20] Loss: 0.6901 Time: 1.76s  
Train Epoch [54/100] [8/20] Loss: 0.7246 Time: 1.75s  
Train Epoch [54/100] [9/20] Loss: 0.7443 Time: 1.75s  
Train Epoch [54/100] [10/20] Loss: 0.7533 Time: 1.76s  
Train Epoch [54/100] [11/20] Loss: 0.7739 Time: 1.76s  
Train Epoch [54/100] [12/20] Loss: 0.7253 Time: 1.76s  
Train Epoch [54/100] [13/20] Loss: 0.7154 Time: 1.76s  
Train Epoch [54/100] [14/20] Loss: 0.7193 Time: 1.75s  
Train Epoch [54/100] [15/20] Loss: 0.6833 Time: 1.76s  
Train Epoch [54/100] [16/20] Loss: 0.6861 Time: 1.76s  
Train Epoch [54/100] [17/20] Loss: 0.6939 Time: 1.76s

Train Epoch [54/100] [18/20] Loss: 0.6946 Time: 1.76s  
Train Epoch [54/100] [19/20] Loss: 0.6929 Time: 1.76s  
Final training 54/99 loss: 0.6929 time 38.25s  
Fri Apr 4 08:16:43 2025 Epoch: 55  
Train Epoch [55/100] [0/20] Loss: 0.7809 Time: 4.72s  
Train Epoch [55/100] [1/20] Loss: 0.7571 Time: 1.76s  
Train Epoch [55/100] [2/20] Loss: 0.7142 Time: 1.76s  
Train Epoch [55/100] [3/20] Loss: 0.7029 Time: 1.76s  
Train Epoch [55/100] [4/20] Loss: 0.6450 Time: 1.75s  
Train Epoch [55/100] [5/20] Loss: 0.6094 Time: 1.76s  
Train Epoch [55/100] [6/20] Loss: 0.6624 Time: 1.76s  
Train Epoch [55/100] [7/20] Loss: 0.6671 Time: 1.76s  
Train Epoch [55/100] [8/20] Loss: 0.6787 Time: 1.76s  
Train Epoch [55/100] [9/20] Loss: 0.6760 Time: 1.76s  
Train Epoch [55/100] [10/20] Loss: 0.6257 Time: 1.75s  
Train Epoch [55/100] [11/20] Loss: 0.6317 Time: 1.76s  
Train Epoch [55/100] [12/20] Loss: 0.6232 Time: 1.76s  
Train Epoch [55/100] [13/20] Loss: 0.6228 Time: 1.76s  
Train Epoch [55/100] [14/20] Loss: 0.6479 Time: 1.75s  
Train Epoch [55/100] [15/20] Loss: 0.6599 Time: 1.75s  
Train Epoch [55/100] [16/20] Loss: 0.6484 Time: 1.76s  
Train Epoch [55/100] [17/20] Loss: 0.6220 Time: 1.76s  
Train Epoch [55/100] [18/20] Loss: 0.6419 Time: 1.75s  
Train Epoch [55/100] [19/20] Loss: 0.6549 Time: 1.75s  
Final training 55/99 loss: 0.6549 time 38.13s  
Fri Apr 4 08:17:21 2025 Epoch: 56  
Train Epoch [56/100] [0/20] Loss: 0.4000 Time: 4.80s  
Train Epoch [56/100] [1/20] Loss: 0.5723 Time: 1.76s  
Train Epoch [56/100] [2/20] Loss: 0.6394 Time: 1.76s  
Train Epoch [56/100] [3/20] Loss: 0.5756 Time: 1.76s  
Train Epoch [56/100] [4/20] Loss: 0.6141 Time: 1.75s  
Train Epoch [56/100] [5/20] Loss: 0.5331 Time: 1.76s  
Train Epoch [56/100] [6/20] Loss: 0.5945 Time: 1.76s  
Train Epoch [56/100] [7/20] Loss: 0.6382 Time: 1.76s  
Train Epoch [56/100] [8/20] Loss: 0.5826 Time: 1.75s  
Train Epoch [56/100] [9/20] Loss: 0.5996 Time: 1.75s  
Train Epoch [56/100] [10/20] Loss: 0.6329 Time: 1.76s  
Train Epoch [56/100] [11/20] Loss: 0.5966 Time: 1.75s  
Train Epoch [56/100] [12/20] Loss: 0.6211 Time: 1.75s  
Train Epoch [56/100] [13/20] Loss: 0.6482 Time: 1.75s  
Train Epoch [56/100] [14/20] Loss: 0.6482 Time: 1.75s  
Train Epoch [56/100] [15/20] Loss: 0.6493 Time: 1.76s  
Train Epoch [56/100] [16/20] Loss: 0.6520 Time: 1.76s  
Train Epoch [56/100] [17/20] Loss: 0.6697 Time: 1.75s  
Train Epoch [56/100] [18/20] Loss: 0.6694 Time: 1.76s  
Train Epoch [56/100] [19/20] Loss: 0.6712 Time: 1.75s  
Final training 56/99 loss: 0.6712 time 38.21s  
Fri Apr 4 08:18:00 2025 Epoch: 57  
Train Epoch [57/100] [0/20] Loss: 0.8283 Time: 4.53s  
Train Epoch [57/100] [1/20] Loss: 0.9141 Time: 1.76s  
Train Epoch [57/100] [2/20] Loss: 0.6768 Time: 1.77s  
Train Epoch [57/100] [3/20] Loss: 0.7032 Time: 1.77s  
Train Epoch [57/100] [4/20] Loss: 0.7276 Time: 1.75s  
Train Epoch [57/100] [5/20] Loss: 0.6731 Time: 1.75s  
Train Epoch [57/100] [6/20] Loss: 0.6306 Time: 1.76s  
Train Epoch [57/100] [7/20] Loss: 0.6532 Time: 1.76s  
Train Epoch [57/100] [8/20] Loss: 0.6545 Time: 1.76s  
Train Epoch [57/100] [9/20] Loss: 0.6635 Time: 1.75s  
Train Epoch [57/100] [10/20] Loss: 0.6941 Time: 1.76s  
Train Epoch [57/100] [11/20] Loss: 0.6519 Time: 1.76s

Train Epoch [57/100] [12/20] Loss: 0.6233 Time: 1.76s  
Train Epoch [57/100] [13/20] Loss: 0.6179 Time: 1.76s  
Train Epoch [57/100] [14/20] Loss: 0.6206 Time: 1.76s  
Train Epoch [57/100] [15/20] Loss: 0.6328 Time: 1.75s  
Train Epoch [57/100] [16/20] Loss: 0.6242 Time: 1.75s  
Train Epoch [57/100] [17/20] Loss: 0.6292 Time: 1.76s  
Train Epoch [57/100] [18/20] Loss: 0.6331 Time: 1.76s  
Train Epoch [57/100] [19/20] Loss: 0.6368 Time: 1.75s  
Final training 57/99 loss: 0.6368 time 37.96s  
Fri Apr 4 08:18:38 2025 Epoch: 58  
Train Epoch [58/100] [0/20] Loss: 0.2016 Time: 4.71s  
Train Epoch [58/100] [1/20] Loss: 0.6008 Time: 1.76s  
Train Epoch [58/100] [2/20] Loss: 0.6986 Time: 1.76s  
Train Epoch [58/100] [3/20] Loss: 0.6824 Time: 1.75s  
Train Epoch [58/100] [4/20] Loss: 0.6960 Time: 1.75s  
Train Epoch [58/100] [5/20] Loss: 0.6543 Time: 1.75s  
Train Epoch [58/100] [6/20] Loss: 0.6222 Time: 1.76s  
Train Epoch [58/100] [7/20] Loss: 0.6251 Time: 1.75s  
Train Epoch [58/100] [8/20] Loss: 0.6223 Time: 1.76s  
Train Epoch [58/100] [9/20] Loss: 0.6600 Time: 1.75s  
Train Epoch [58/100] [10/20] Loss: 0.6650 Time: 1.76s  
Train Epoch [58/100] [11/20] Loss: 0.6509 Time: 1.75s  
Train Epoch [58/100] [12/20] Loss: 0.6522 Time: 1.76s  
Train Epoch [58/100] [13/20] Loss: 0.6261 Time: 1.75s  
Train Epoch [58/100] [14/20] Loss: 0.6331 Time: 1.76s  
Train Epoch [58/100] [15/20] Loss: 0.6078 Time: 1.75s  
Train Epoch [58/100] [16/20] Loss: 0.6308 Time: 1.76s  
Train Epoch [58/100] [17/20] Loss: 0.6513 Time: 1.75s  
Train Epoch [58/100] [18/20] Loss: 0.6580 Time: 1.76s  
Train Epoch [58/100] [19/20] Loss: 0.6629 Time: 1.76s  
Final training 58/99 loss: 0.6629 time 38.12s  
Fri Apr 4 08:19:16 2025 Epoch: 59  
Train Epoch [59/100] [0/20] Loss: 0.6790 Time: 4.61s  
Train Epoch [59/100] [1/20] Loss: 0.6952 Time: 1.77s  
Train Epoch [59/100] [2/20] Loss: 0.7152 Time: 1.77s  
Train Epoch [59/100] [3/20] Loss: 0.7615 Time: 1.76s  
Train Epoch [59/100] [4/20] Loss: 0.7664 Time: 1.75s  
Train Epoch [59/100] [5/20] Loss: 0.7386 Time: 1.76s  
Train Epoch [59/100] [6/20] Loss: 0.7589 Time: 1.76s  
Train Epoch [59/100] [7/20] Loss: 0.6805 Time: 1.75s  
Train Epoch [59/100] [8/20] Loss: 0.6674 Time: 1.76s  
Train Epoch [59/100] [9/20] Loss: 0.6967 Time: 1.76s  
Train Epoch [59/100] [10/20] Loss: 0.6876 Time: 1.76s  
Train Epoch [59/100] [11/20] Loss: 0.6855 Time: 1.76s  
Train Epoch [59/100] [12/20] Loss: 0.6434 Time: 1.75s  
Train Epoch [59/100] [13/20] Loss: 0.6215 Time: 1.76s  
Train Epoch [59/100] [14/20] Loss: 0.6321 Time: 1.76s  
Train Epoch [59/100] [15/20] Loss: 0.6345 Time: 1.76s  
Train Epoch [59/100] [16/20] Loss: 0.6269 Time: 1.76s  
Train Epoch [59/100] [17/20] Loss: 0.6217 Time: 1.75s  
Train Epoch [59/100] [18/20] Loss: 0.6230 Time: 1.76s  
Train Epoch [59/100] [19/20] Loss: 0.6290 Time: 1.76s  
Final training 59/99 loss: 0.6290 time 38.06s  
Val Epoch [59/100] [0/6] Dice TC: 0.0000 Dice WT: 0.0000 Dice ET: 0.0000 Time: 16.95s  
Val Epoch [59/100] [1/6] Dice TC: 0.0000 Dice WT: 0.8702 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [59/100] [2/6] Dice TC: 0.4224 Dice WT: 0.3445 Dice ET: 0.0002 Time: 14.70s  
Val Epoch [59/100] [3/6] Dice TC: 0.0985 Dice WT: 0.7042 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [59/100] [4/6] Dice TC: 0.7762 Dice WT: 0.8516 Dice ET: 0.8305 Time: 14.69s  
Val Epoch [59/100] [5/6] Dice TC: 0.6811 Dice WT: 0.3734 Dice ET: 0.0000 Time: 14.70s  
Final validation stats 59/99 , dice\_tc: 0.6810863614082336 , dice\_wt: 0.3734350204467

7734 , dice\_et: 0.0 , Dice\_Avg: 0.3515070974826813 , time 90.49s  
New best model: 0.163150 --> 0.351507  
Checkpoint saved: ./checkpoints/best\_model.pth  
Fri Apr 4 08:21:25 2025 Epoch: 60  
Train Epoch [60/100] [0/20] Loss: 0.1703 Time: 4.89s  
Train Epoch [60/100] [1/20] Loss: 0.4595 Time: 1.77s  
Train Epoch [60/100] [2/20] Loss: 0.5031 Time: 1.76s  
Train Epoch [60/100] [3/20] Loss: 0.6273 Time: 1.76s  
Train Epoch [60/100] [4/20] Loss: 0.6280 Time: 1.75s  
Train Epoch [60/100] [5/20] Loss: 0.6451 Time: 1.77s  
Train Epoch [60/100] [6/20] Loss: 0.6380 Time: 1.76s  
Train Epoch [60/100] [7/20] Loss: 0.6690 Time: 1.76s  
Train Epoch [60/100] [8/20] Loss: 0.6491 Time: 1.76s  
Train Epoch [60/100] [9/20] Loss: 0.6483 Time: 1.75s  
Train Epoch [60/100] [10/20] Loss: 0.6803 Time: 1.75s  
Train Epoch [60/100] [11/20] Loss: 0.6802 Time: 1.76s  
Train Epoch [60/100] [12/20] Loss: 0.6855 Time: 1.76s  
Train Epoch [60/100] [13/20] Loss: 0.6866 Time: 1.76s  
Train Epoch [60/100] [14/20] Loss: 0.6577 Time: 1.76s  
Train Epoch [60/100] [15/20] Loss: 0.6519 Time: 1.76s  
Train Epoch [60/100] [16/20] Loss: 0.6578 Time: 1.75s  
Train Epoch [60/100] [17/20] Loss: 0.6624 Time: 1.75s  
Train Epoch [60/100] [18/20] Loss: 0.6676 Time: 1.76s  
Train Epoch [60/100] [19/20] Loss: 0.6582 Time: 1.76s  
Final training 60/99 loss: 0.6582 time 38.36s  
Fri Apr 4 08:22:03 2025 Epoch: 61  
Train Epoch [61/100] [0/20] Loss: 0.9999 Time: 4.53s  
Train Epoch [61/100] [1/20] Loss: 0.5895 Time: 1.76s  
Train Epoch [61/100] [2/20] Loss: 0.5116 Time: 1.76s  
Train Epoch [61/100] [3/20] Loss: 0.5473 Time: 1.75s  
Train Epoch [61/100] [4/20] Loss: 0.5638 Time: 1.75s  
Train Epoch [61/100] [5/20] Loss: 0.6365 Time: 1.76s  
Train Epoch [61/100] [6/20] Loss: 0.6884 Time: 1.76s  
Train Epoch [61/100] [7/20] Loss: 0.6585 Time: 1.76s  
Train Epoch [61/100] [8/20] Loss: 0.6666 Time: 1.75s  
Train Epoch [61/100] [9/20] Loss: 0.6711 Time: 1.75s  
Train Epoch [61/100] [10/20] Loss: 0.6594 Time: 1.76s  
Train Epoch [61/100] [11/20] Loss: 0.6757 Time: 1.76s  
Train Epoch [61/100] [12/20] Loss: 0.6911 Time: 1.76s  
Train Epoch [61/100] [13/20] Loss: 0.7131 Time: 1.76s  
Train Epoch [61/100] [14/20] Loss: 0.7162 Time: 1.76s  
Train Epoch [61/100] [15/20] Loss: 0.7167 Time: 1.75s  
Train Epoch [61/100] [16/20] Loss: 0.7041 Time: 1.76s  
Train Epoch [61/100] [17/20] Loss: 0.6900 Time: 1.76s  
Train Epoch [61/100] [18/20] Loss: 0.6685 Time: 1.76s  
Train Epoch [61/100] [19/20] Loss: 0.6851 Time: 1.76s  
Final training 61/99 loss: 0.6851 time 37.94s  
Fri Apr 4 08:22:41 2025 Epoch: 62  
Train Epoch [62/100] [0/20] Loss: 0.6509 Time: 4.68s  
Train Epoch [62/100] [1/20] Loss: 0.7199 Time: 1.77s  
Train Epoch [62/100] [2/20] Loss: 0.8132 Time: 1.76s  
Train Epoch [62/100] [3/20] Loss: 0.6444 Time: 1.76s  
Train Epoch [62/100] [4/20] Loss: 0.6466 Time: 1.75s  
Train Epoch [62/100] [5/20] Loss: 0.6462 Time: 1.76s  
Train Epoch [62/100] [6/20] Loss: 0.6014 Time: 1.76s  
Train Epoch [62/100] [7/20] Loss: 0.6212 Time: 1.76s  
Train Epoch [62/100] [8/20] Loss: 0.6138 Time: 1.76s  
Train Epoch [62/100] [9/20] Loss: 0.5710 Time: 1.76s  
Train Epoch [62/100] [10/20] Loss: 0.5813 Time: 1.76s  
Train Epoch [62/100] [11/20] Loss: 0.5858 Time: 1.76s

Train Epoch [62/100] [12/20] Loss: 0.5747 Time: 1.75s  
Train Epoch [62/100] [13/20] Loss: 0.5855 Time: 1.76s  
Train Epoch [62/100] [14/20] Loss: 0.5989 Time: 1.76s  
Train Epoch [62/100] [15/20] Loss: 0.5976 Time: 1.75s  
Train Epoch [62/100] [16/20] Loss: 0.5806 Time: 1.76s  
Train Epoch [62/100] [17/20] Loss: 0.5717 Time: 1.75s  
Train Epoch [62/100] [18/20] Loss: 0.5810 Time: 1.75s  
Train Epoch [62/100] [19/20] Loss: 0.5975 Time: 1.75s  
Final training 62/99 loss: 0.5975 time 38.10s  
Fri Apr 4 08:23:19 2025 Epoch: 63  
Train Epoch [63/100] [0/20] Loss: 0.6494 Time: 4.65s  
Train Epoch [63/100] [1/20] Loss: 0.6201 Time: 1.76s  
Train Epoch [63/100] [2/20] Loss: 0.6543 Time: 1.76s  
Train Epoch [63/100] [3/20] Loss: 0.5287 Time: 1.76s  
Train Epoch [63/100] [4/20] Loss: 0.5131 Time: 1.76s  
Train Epoch [63/100] [5/20] Loss: 0.4990 Time: 1.76s  
Train Epoch [63/100] [6/20] Loss: 0.5604 Time: 1.76s  
Train Epoch [63/100] [7/20] Loss: 0.5842 Time: 1.75s  
Train Epoch [63/100] [8/20] Loss: 0.6135 Time: 1.76s  
Train Epoch [63/100] [9/20] Loss: 0.5654 Time: 1.75s  
Train Epoch [63/100] [10/20] Loss: 0.5248 Time: 1.75s  
Train Epoch [63/100] [11/20] Loss: 0.5429 Time: 1.76s  
Train Epoch [63/100] [12/20] Loss: 0.5780 Time: 1.76s  
Train Epoch [63/100] [13/20] Loss: 0.5876 Time: 1.76s  
Train Epoch [63/100] [14/20] Loss: 0.5848 Time: 1.76s  
Train Epoch [63/100] [15/20] Loss: 0.6035 Time: 1.75s  
Train Epoch [63/100] [16/20] Loss: 0.5978 Time: 1.76s  
Train Epoch [63/100] [17/20] Loss: 0.5945 Time: 1.76s  
Train Epoch [63/100] [18/20] Loss: 0.6131 Time: 1.76s  
Train Epoch [63/100] [19/20] Loss: 0.6324 Time: 1.76s  
Final training 63/99 loss: 0.6324 time 38.07s  
Fri Apr 4 08:23:57 2025 Epoch: 64  
Train Epoch [64/100] [0/20] Loss: 0.3437 Time: 4.75s  
Train Epoch [64/100] [1/20] Loss: 0.5424 Time: 1.78s  
Train Epoch [64/100] [2/20] Loss: 0.5220 Time: 1.76s  
Train Epoch [64/100] [3/20] Loss: 0.5377 Time: 1.78s  
Train Epoch [64/100] [4/20] Loss: 0.4761 Time: 1.76s  
Train Epoch [64/100] [5/20] Loss: 0.4341 Time: 1.75s  
Train Epoch [64/100] [6/20] Loss: 0.4805 Time: 1.76s  
Train Epoch [64/100] [7/20] Loss: 0.5454 Time: 1.76s  
Train Epoch [64/100] [8/20] Loss: 0.5578 Time: 1.76s  
Train Epoch [64/100] [9/20] Loss: 0.5769 Time: 1.76s  
Train Epoch [64/100] [10/20] Loss: 0.5898 Time: 1.75s  
Train Epoch [64/100] [11/20] Loss: 0.5791 Time: 1.75s  
Train Epoch [64/100] [12/20] Loss: 0.6075 Time: 1.76s  
Train Epoch [64/100] [13/20] Loss: 0.5930 Time: 1.76s  
Train Epoch [64/100] [14/20] Loss: 0.5954 Time: 1.76s  
Train Epoch [64/100] [15/20] Loss: 0.6204 Time: 1.76s  
Train Epoch [64/100] [16/20] Loss: 0.6195 Time: 1.76s  
Train Epoch [64/100] [17/20] Loss: 0.6237 Time: 1.75s  
Train Epoch [64/100] [18/20] Loss: 0.6231 Time: 1.75s  
Train Epoch [64/100] [19/20] Loss: 0.6225 Time: 1.76s  
Final training 64/99 loss: 0.6225 time 38.20s  
Fri Apr 4 08:24:35 2025 Epoch: 65  
Train Epoch [65/100] [0/20] Loss: 0.3658 Time: 4.82s  
Train Epoch [65/100] [1/20] Loss: 0.5087 Time: 1.76s  
Train Epoch [65/100] [2/20] Loss: 0.5770 Time: 1.76s  
Train Epoch [65/100] [3/20] Loss: 0.6828 Time: 1.76s  
Train Epoch [65/100] [4/20] Loss: 0.6809 Time: 1.76s  
Train Epoch [65/100] [5/20] Loss: 0.6372 Time: 1.75s

Train Epoch [65/100] [6/20] Loss: 0.6539 Time: 1.76s  
Train Epoch [65/100] [7/20] Loss: 0.6254 Time: 1.76s  
Train Epoch [65/100] [8/20] Loss: 0.5692 Time: 1.76s  
Train Epoch [65/100] [9/20] Loss: 0.6123 Time: 1.75s  
Train Epoch [65/100] [10/20] Loss: 0.6475 Time: 1.76s  
Train Epoch [65/100] [11/20] Loss: 0.6456 Time: 1.75s  
Train Epoch [65/100] [12/20] Loss: 0.6603 Time: 1.76s  
Train Epoch [65/100] [13/20] Loss: 0.6703 Time: 1.76s  
Train Epoch [65/100] [14/20] Loss: 0.6708 Time: 1.75s  
Train Epoch [65/100] [15/20] Loss: 0.6913 Time: 1.75s  
Train Epoch [65/100] [16/20] Loss: 0.6968 Time: 1.76s  
Train Epoch [65/100] [17/20] Loss: 0.6942 Time: 1.76s  
Train Epoch [65/100] [18/20] Loss: 0.6860 Time: 1.75s  
Train Epoch [65/100] [19/20] Loss: 0.6869 Time: 1.75s  
Final training 65/99 loss: 0.6869 time 38.22s  
Fri Apr 4 08:25:14 2025 Epoch: 66  
Train Epoch [66/100] [0/20] Loss: 0.7517 Time: 4.71s  
Train Epoch [66/100] [1/20] Loss: 0.7106 Time: 1.76s  
Train Epoch [66/100] [2/20] Loss: 0.6632 Time: 1.76s  
Train Epoch [66/100] [3/20] Loss: 0.6681 Time: 1.75s  
Train Epoch [66/100] [4/20] Loss: 0.5683 Time: 1.75s  
Train Epoch [66/100] [5/20] Loss: 0.5974 Time: 1.76s  
Train Epoch [66/100] [6/20] Loss: 0.6549 Time: 1.76s  
Train Epoch [66/100] [7/20] Loss: 0.6411 Time: 1.75s  
Train Epoch [66/100] [8/20] Loss: 0.6476 Time: 1.76s  
Train Epoch [66/100] [9/20] Loss: 0.6469 Time: 1.75s  
Train Epoch [66/100] [10/20] Loss: 0.6210 Time: 1.75s  
Train Epoch [66/100] [11/20] Loss: 0.6067 Time: 1.75s  
Train Epoch [66/100] [12/20] Loss: 0.6321 Time: 1.76s  
Train Epoch [66/100] [13/20] Loss: 0.6491 Time: 1.76s  
Train Epoch [66/100] [14/20] Loss: 0.6443 Time: 1.76s  
Train Epoch [66/100] [15/20] Loss: 0.6660 Time: 1.75s  
Train Epoch [66/100] [16/20] Loss: 0.6563 Time: 1.76s  
Train Epoch [66/100] [17/20] Loss: 0.6260 Time: 1.75s  
Train Epoch [66/100] [18/20] Loss: 0.6430 Time: 1.75s  
Train Epoch [66/100] [19/20] Loss: 0.6309 Time: 1.76s  
Final training 66/99 loss: 0.6309 time 38.11s  
Fri Apr 4 08:25:52 2025 Epoch: 67  
Train Epoch [67/100] [0/20] Loss: 0.6679 Time: 4.68s  
Train Epoch [67/100] [1/20] Loss: 0.6351 Time: 1.78s  
Train Epoch [67/100] [2/20] Loss: 0.6520 Time: 1.76s  
Train Epoch [67/100] [3/20] Loss: 0.6628 Time: 1.76s  
Train Epoch [67/100] [4/20] Loss: 0.6557 Time: 1.76s  
Train Epoch [67/100] [5/20] Loss: 0.6660 Time: 1.75s  
Train Epoch [67/100] [6/20] Loss: 0.6283 Time: 1.75s  
Train Epoch [67/100] [7/20] Loss: 0.6669 Time: 1.75s  
Train Epoch [67/100] [8/20] Loss: 0.6204 Time: 1.76s  
Train Epoch [67/100] [9/20] Loss: 0.6071 Time: 1.75s  
Train Epoch [67/100] [10/20] Loss: 0.6231 Time: 1.76s  
Train Epoch [67/100] [11/20] Loss: 0.6316 Time: 1.75s  
Train Epoch [67/100] [12/20] Loss: 0.5933 Time: 1.76s  
Train Epoch [67/100] [13/20] Loss: 0.5789 Time: 1.75s  
Train Epoch [67/100] [14/20] Loss: 0.5846 Time: 1.75s  
Train Epoch [67/100] [15/20] Loss: 0.5729 Time: 1.76s  
Train Epoch [67/100] [16/20] Loss: 0.5821 Time: 1.76s  
Train Epoch [67/100] [17/20] Loss: 0.5604 Time: 1.75s  
Train Epoch [67/100] [18/20] Loss: 0.5702 Time: 1.75s  
Train Epoch [67/100] [19/20] Loss: 0.5563 Time: 1.76s  
Final training 67/99 loss: 0.5563 time 38.12s  
Fri Apr 4 08:26:30 2025 Epoch: 68

Train Epoch [68/100] [0/20] Loss: 0.7113 Time: 4.80s  
Train Epoch [68/100] [1/20] Loss: 0.7192 Time: 1.76s  
Train Epoch [68/100] [2/20] Loss: 0.5709 Time: 1.76s  
Train Epoch [68/100] [3/20] Loss: 0.6035 Time: 1.77s  
Train Epoch [68/100] [4/20] Loss: 0.5857 Time: 1.75s  
Train Epoch [68/100] [5/20] Loss: 0.5858 Time: 1.76s  
Train Epoch [68/100] [6/20] Loss: 0.5784 Time: 1.75s  
Train Epoch [68/100] [7/20] Loss: 0.5825 Time: 1.76s  
Train Epoch [68/100] [8/20] Loss: 0.6037 Time: 1.75s  
Train Epoch [68/100] [9/20] Loss: 0.5651 Time: 1.76s  
Train Epoch [68/100] [10/20] Loss: 0.5737 Time: 1.76s  
Train Epoch [68/100] [11/20] Loss: 0.6016 Time: 1.75s  
Train Epoch [68/100] [12/20] Loss: 0.5701 Time: 1.76s  
Train Epoch [68/100] [13/20] Loss: 0.5773 Time: 1.75s  
Train Epoch [68/100] [14/20] Loss: 0.5836 Time: 1.75s  
Train Epoch [68/100] [15/20] Loss: 0.5557 Time: 1.76s  
Train Epoch [68/100] [16/20] Loss: 0.5659 Time: 1.75s  
Train Epoch [68/100] [17/20] Loss: 0.5735 Time: 1.75s  
Train Epoch [68/100] [18/20] Loss: 0.5791 Time: 1.76s  
Train Epoch [68/100] [19/20] Loss: 0.6002 Time: 1.76s  
Final training 68/99 loss: 0.6002 time 38.22s  
Fri Apr 4 08:27:08 2025 Epoch: 69  
Train Epoch [69/100] [0/20] Loss: 0.7087 Time: 4.78s  
Train Epoch [69/100] [1/20] Loss: 0.6726 Time: 1.76s  
Train Epoch [69/100] [2/20] Loss: 0.6709 Time: 1.78s  
Train Epoch [69/100] [3/20] Loss: 0.7180 Time: 1.78s  
Train Epoch [69/100] [4/20] Loss: 0.6537 Time: 1.76s  
Train Epoch [69/100] [5/20] Loss: 0.5707 Time: 1.76s  
Train Epoch [69/100] [6/20] Loss: 0.5529 Time: 1.76s  
Train Epoch [69/100] [7/20] Loss: 0.6001 Time: 1.75s  
Train Epoch [69/100] [8/20] Loss: 0.5893 Time: 1.76s  
Train Epoch [69/100] [9/20] Loss: 0.6048 Time: 1.75s  
Train Epoch [69/100] [10/20] Loss: 0.6407 Time: 1.75s  
Train Epoch [69/100] [11/20] Loss: 0.5978 Time: 1.76s  
Train Epoch [69/100] [12/20] Loss: 0.6287 Time: 1.76s  
Train Epoch [69/100] [13/20] Loss: 0.5935 Time: 1.76s  
Train Epoch [69/100] [14/20] Loss: 0.6206 Time: 1.76s  
Train Epoch [69/100] [15/20] Loss: 0.6269 Time: 1.75s  
Train Epoch [69/100] [16/20] Loss: 0.6233 Time: 1.76s  
Train Epoch [69/100] [17/20] Loss: 0.6226 Time: 1.76s  
Train Epoch [69/100] [18/20] Loss: 0.6249 Time: 1.76s  
Train Epoch [69/100] [19/20] Loss: 0.6299 Time: 1.75s  
Final training 69/99 loss: 0.6299 time 38.23s  
Val Epoch [69/100] [0/6] Dice TC: 0.0000 Dice WT: 0.0004 Dice ET: 0.0000 Time: 16.88s  
Val Epoch [69/100] [1/6] Dice TC: 0.0001 Dice WT: 0.8596 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [69/100] [2/6] Dice TC: 0.7569 Dice WT: 0.6134 Dice ET: 0.0005 Time: 14.70s  
Val Epoch [69/100] [3/6] Dice TC: 0.0966 Dice WT: 0.7491 Dice ET: 0.0000 Time: 14.69s  
Val Epoch [69/100] [4/6] Dice TC: 0.8556 Dice WT: 0.8224 Dice ET: 0.7575 Time: 14.69s  
Val Epoch [69/100] [5/6] Dice TC: 0.1303 Dice WT: 0.1397 Dice ET: 0.0000 Time: 14.69s  
Final validation stats 69/99 , dice\_tc: 0.13033583760261536 , dice\_wt: 0.139715537428  
8559 , dice\_et: 0.0 , Dice\_Avg: 0.09001711755990982 , time 90.40s  
Fri Apr 4 08:29:17 2025 Epoch: 70  
Train Epoch [70/100] [0/20] Loss: 0.7644 Time: 4.90s  
Train Epoch [70/100] [1/20] Loss: 0.6161 Time: 1.76s  
Train Epoch [70/100] [2/20] Loss: 0.4740 Time: 1.76s  
Train Epoch [70/100] [3/20] Loss: 0.4495 Time: 1.75s  
Train Epoch [70/100] [4/20] Loss: 0.4833 Time: 1.75s  
Train Epoch [70/100] [5/20] Loss: 0.5291 Time: 1.75s  
Train Epoch [70/100] [6/20] Loss: 0.5829 Time: 1.75s  
Train Epoch [70/100] [7/20] Loss: 0.5397 Time: 1.75s

Train Epoch [70/100] [8/20] Loss: 0.5526 Time: 1.76s  
Train Epoch [70/100] [9/20] Loss: 0.5383 Time: 1.75s  
Train Epoch [70/100] [10/20] Loss: 0.5184 Time: 1.76s  
Train Epoch [70/100] [11/20] Loss: 0.5300 Time: 1.75s  
Train Epoch [70/100] [12/20] Loss: 0.4996 Time: 1.75s  
Train Epoch [70/100] [13/20] Loss: 0.5151 Time: 1.76s  
Train Epoch [70/100] [14/20] Loss: 0.5202 Time: 1.75s  
Train Epoch [70/100] [15/20] Loss: 0.5289 Time: 1.75s  
Train Epoch [70/100] [16/20] Loss: 0.5518 Time: 1.75s  
Train Epoch [70/100] [17/20] Loss: 0.5627 Time: 1.75s  
Train Epoch [70/100] [18/20] Loss: 0.5858 Time: 1.76s  
Train Epoch [70/100] [19/20] Loss: 0.5851 Time: 1.75s  
Final training 70/99 loss: 0.5851 time 38.30s  
Fri Apr 4 08:29:55 2025 Epoch: 71  
Train Epoch [71/100] [0/20] Loss: 0.7188 Time: 4.92s  
Train Epoch [71/100] [1/20] Loss: 0.5545 Time: 1.77s  
Train Epoch [71/100] [2/20] Loss: 0.5985 Time: 1.81s  
Train Epoch [71/100] [3/20] Loss: 0.5222 Time: 1.76s  
Train Epoch [71/100] [4/20] Loss: 0.6177 Time: 1.75s  
Train Epoch [71/100] [5/20] Loss: 0.5475 Time: 1.76s  
Train Epoch [71/100] [6/20] Loss: 0.5860 Time: 1.75s  
Train Epoch [71/100] [7/20] Loss: 0.5978 Time: 1.76s  
Train Epoch [71/100] [8/20] Loss: 0.5914 Time: 1.76s  
Train Epoch [71/100] [9/20] Loss: 0.5828 Time: 1.75s  
Train Epoch [71/100] [10/20] Loss: 0.6128 Time: 1.76s  
Train Epoch [71/100] [11/20] Loss: 0.6427 Time: 1.76s  
Train Epoch [71/100] [12/20] Loss: 0.6400 Time: 1.76s  
Train Epoch [71/100] [13/20] Loss: 0.6142 Time: 1.76s  
Train Epoch [71/100] [14/20] Loss: 0.6399 Time: 1.75s  
Train Epoch [71/100] [15/20] Loss: 0.6451 Time: 1.75s  
Train Epoch [71/100] [16/20] Loss: 0.6138 Time: 1.76s  
Train Epoch [71/100] [17/20] Loss: 0.6164 Time: 1.76s  
Train Epoch [71/100] [18/20] Loss: 0.6120 Time: 1.75s  
Train Epoch [71/100] [19/20] Loss: 0.6216 Time: 1.76s  
Final training 71/99 loss: 0.6216 time 38.42s  
Fri Apr 4 08:30:33 2025 Epoch: 72  
Train Epoch [72/100] [0/20] Loss: 0.8207 Time: 4.81s  
Train Epoch [72/100] [1/20] Loss: 0.8770 Time: 1.75s  
Train Epoch [72/100] [2/20] Loss: 0.9179 Time: 1.75s  
Train Epoch [72/100] [3/20] Loss: 0.8573 Time: 1.75s  
Train Epoch [72/100] [4/20] Loss: 0.7882 Time: 1.75s  
Train Epoch [72/100] [5/20] Loss: 0.7751 Time: 1.75s  
Train Epoch [72/100] [6/20] Loss: 0.7284 Time: 1.75s  
Train Epoch [72/100] [7/20] Loss: 0.6560 Time: 1.76s  
Train Epoch [72/100] [8/20] Loss: 0.6122 Time: 1.76s  
Train Epoch [72/100] [9/20] Loss: 0.6509 Time: 1.75s  
Train Epoch [72/100] [10/20] Loss: 0.6604 Time: 1.76s  
Train Epoch [72/100] [11/20] Loss: 0.6173 Time: 1.76s  
Train Epoch [72/100] [12/20] Loss: 0.6147 Time: 1.75s  
Train Epoch [72/100] [13/20] Loss: 0.6410 Time: 1.75s  
Train Epoch [72/100] [14/20] Loss: 0.6461 Time: 1.76s  
Train Epoch [72/100] [15/20] Loss: 0.6368 Time: 1.76s  
Train Epoch [72/100] [16/20] Loss: 0.6349 Time: 1.75s  
Train Epoch [72/100] [17/20] Loss: 0.6377 Time: 1.75s  
Train Epoch [72/100] [18/20] Loss: 0.6160 Time: 1.76s  
Train Epoch [72/100] [19/20] Loss: 0.6183 Time: 1.76s  
Final training 72/99 loss: 0.6183 time 38.21s  
Fri Apr 4 08:31:12 2025 Epoch: 73  
Train Epoch [73/100] [0/20] Loss: 0.7855 Time: 4.66s  
Train Epoch [73/100] [1/20] Loss: 0.6961 Time: 1.76s

Train Epoch [73/100] [2/20] Loss: 0.6391 Time: 1.76s  
Train Epoch [73/100] [3/20] Loss: 0.5457 Time: 1.75s  
Train Epoch [73/100] [4/20] Loss: 0.5990 Time: 1.76s  
Train Epoch [73/100] [5/20] Loss: 0.6123 Time: 1.76s  
Train Epoch [73/100] [6/20] Loss: 0.6262 Time: 1.76s  
Train Epoch [73/100] [7/20] Loss: 0.6384 Time: 1.75s  
Train Epoch [73/100] [8/20] Loss: 0.6271 Time: 1.76s  
Train Epoch [73/100] [9/20] Loss: 0.6310 Time: 1.76s  
Train Epoch [73/100] [10/20] Loss: 0.6419 Time: 1.75s  
Train Epoch [73/100] [11/20] Loss: 0.6324 Time: 1.75s  
Train Epoch [73/100] [12/20] Loss: 0.5930 Time: 1.75s  
Train Epoch [73/100] [13/20] Loss: 0.5927 Time: 1.76s  
Train Epoch [73/100] [14/20] Loss: 0.5974 Time: 1.75s  
Train Epoch [73/100] [15/20] Loss: 0.5750 Time: 1.75s  
Train Epoch [73/100] [16/20] Loss: 0.5957 Time: 1.75s  
Train Epoch [73/100] [17/20] Loss: 0.6033 Time: 1.75s  
Train Epoch [73/100] [18/20] Loss: 0.5789 Time: 1.75s  
Train Epoch [73/100] [19/20] Loss: 0.5548 Time: 1.75s  
Final training 73/99 loss: 0.5548 time 38.07s  
Fri Apr 4 08:31:50 2025 Epoch: 74  
Train Epoch [74/100] [0/20] Loss: 0.7634 Time: 4.82s  
Train Epoch [74/100] [1/20] Loss: 0.6927 Time: 1.77s  
Train Epoch [74/100] [2/20] Loss: 0.6985 Time: 1.76s  
Train Epoch [74/100] [3/20] Loss: 0.7739 Time: 1.77s  
Train Epoch [74/100] [4/20] Loss: 0.7557 Time: 1.75s  
Train Epoch [74/100] [5/20] Loss: 0.7152 Time: 1.75s  
Train Epoch [74/100] [6/20] Loss: 0.7038 Time: 1.76s  
Train Epoch [74/100] [7/20] Loss: 0.6567 Time: 1.75s  
Train Epoch [74/100] [8/20] Loss: 0.6051 Time: 1.76s  
Train Epoch [74/100] [9/20] Loss: 0.6214 Time: 1.75s  
Train Epoch [74/100] [10/20] Loss: 0.6382 Time: 1.75s  
Train Epoch [74/100] [11/20] Loss: 0.6428 Time: 1.75s  
Train Epoch [74/100] [12/20] Loss: 0.6535 Time: 1.75s  
Train Epoch [74/100] [13/20] Loss: 0.6688 Time: 1.76s  
Train Epoch [74/100] [14/20] Loss: 0.6340 Time: 1.76s  
Train Epoch [74/100] [15/20] Loss: 0.6278 Time: 1.75s  
Train Epoch [74/100] [16/20] Loss: 0.6157 Time: 1.76s  
Train Epoch [74/100] [17/20] Loss: 0.6152 Time: 1.76s  
Train Epoch [74/100] [18/20] Loss: 0.6164 Time: 1.76s  
Train Epoch [74/100] [19/20] Loss: 0.5910 Time: 1.75s  
Final training 74/99 loss: 0.5910 time 38.25s  
Fri Apr 4 08:32:28 2025 Epoch: 75  
Train Epoch [75/100] [0/20] Loss: 1.0000 Time: 4.52s  
Train Epoch [75/100] [1/20] Loss: 0.6065 Time: 1.76s  
Train Epoch [75/100] [2/20] Loss: 0.6501 Time: 1.75s  
Train Epoch [75/100] [3/20] Loss: 0.6623 Time: 1.75s  
Train Epoch [75/100] [4/20] Loss: 0.7074 Time: 1.75s  
Train Epoch [75/100] [5/20] Loss: 0.7002 Time: 1.75s  
Train Epoch [75/100] [6/20] Loss: 0.7430 Time: 1.75s  
Train Epoch [75/100] [7/20] Loss: 0.7251 Time: 1.75s  
Train Epoch [75/100] [8/20] Loss: 0.7160 Time: 1.75s  
Train Epoch [75/100] [9/20] Loss: 0.6588 Time: 1.75s  
Train Epoch [75/100] [10/20] Loss: 0.6279 Time: 1.75s  
Train Epoch [75/100] [11/20] Loss: 0.6344 Time: 1.75s  
Train Epoch [75/100] [12/20] Loss: 0.6328 Time: 1.75s  
Train Epoch [75/100] [13/20] Loss: 0.6591 Time: 1.75s  
Train Epoch [75/100] [14/20] Loss: 0.6618 Time: 1.75s  
Train Epoch [75/100] [15/20] Loss: 0.6653 Time: 1.75s  
Train Epoch [75/100] [16/20] Loss: 0.6515 Time: 1.75s  
Train Epoch [75/100] [17/20] Loss: 0.6282 Time: 1.75s

Train Epoch [75/100] [18/20] Loss: 0.6297 Time: 1.75s  
Train Epoch [75/100] [19/20] Loss: 0.6482 Time: 1.75s  
Final training 75/99 loss: 0.6482 time 37.89s  
Fri Apr 4 08:33:06 2025 Epoch: 76  
Train Epoch [76/100] [0/20] Loss: 0.6418 Time: 4.79s  
Train Epoch [76/100] [1/20] Loss: 0.6638 Time: 1.76s  
Train Epoch [76/100] [2/20] Loss: 0.6752 Time: 1.76s  
Train Epoch [76/100] [3/20] Loss: 0.6331 Time: 1.76s  
Train Epoch [76/100] [4/20] Loss: 0.6396 Time: 1.75s  
Train Epoch [76/100] [5/20] Loss: 0.6514 Time: 1.76s  
Train Epoch [76/100] [6/20] Loss: 0.6748 Time: 1.76s  
Train Epoch [76/100] [7/20] Loss: 0.6317 Time: 1.76s  
Train Epoch [76/100] [8/20] Loss: 0.6312 Time: 1.75s  
Train Epoch [76/100] [9/20] Loss: 0.6424 Time: 1.75s  
Train Epoch [76/100] [10/20] Loss: 0.6471 Time: 1.76s  
Train Epoch [76/100] [11/20] Loss: 0.6238 Time: 1.75s  
Train Epoch [76/100] [12/20] Loss: 0.6219 Time: 1.76s  
Train Epoch [76/100] [13/20] Loss: 0.6486 Time: 1.76s  
Train Epoch [76/100] [14/20] Loss: 0.6716 Time: 1.76s  
Train Epoch [76/100] [15/20] Loss: 0.6586 Time: 1.75s  
Train Epoch [76/100] [16/20] Loss: 0.6787 Time: 1.75s  
Train Epoch [76/100] [17/20] Loss: 0.6493 Time: 1.76s  
Train Epoch [76/100] [18/20] Loss: 0.6531 Time: 1.76s  
Train Epoch [76/100] [19/20] Loss: 0.6281 Time: 1.76s  
Final training 76/99 loss: 0.6281 time 38.20s  
Fri Apr 4 08:33:44 2025 Epoch: 77  
Train Epoch [77/100] [0/20] Loss: 0.7366 Time: 4.76s  
Train Epoch [77/100] [1/20] Loss: 0.5858 Time: 1.77s  
Train Epoch [77/100] [2/20] Loss: 0.6080 Time: 1.76s  
Train Epoch [77/100] [3/20] Loss: 0.6097 Time: 1.77s  
Train Epoch [77/100] [4/20] Loss: 0.5752 Time: 1.76s  
Train Epoch [77/100] [5/20] Loss: 0.6459 Time: 1.75s  
Train Epoch [77/100] [6/20] Loss: 0.6494 Time: 1.76s  
Train Epoch [77/100] [7/20] Loss: 0.6932 Time: 1.76s  
Train Epoch [77/100] [8/20] Loss: 0.6792 Time: 1.75s  
Train Epoch [77/100] [9/20] Loss: 0.6822 Time: 1.76s  
Train Epoch [77/100] [10/20] Loss: 0.6448 Time: 1.76s  
Train Epoch [77/100] [11/20] Loss: 0.6467 Time: 1.76s  
Train Epoch [77/100] [12/20] Loss: 0.6094 Time: 1.76s  
Train Epoch [77/100] [13/20] Loss: 0.6140 Time: 1.76s  
Train Epoch [77/100] [14/20] Loss: 0.6226 Time: 1.76s  
Train Epoch [77/100] [15/20] Loss: 0.6437 Time: 1.75s  
Train Epoch [77/100] [16/20] Loss: 0.6463 Time: 1.75s  
Train Epoch [77/100] [17/20] Loss: 0.6188 Time: 1.75s  
Train Epoch [77/100] [18/20] Loss: 0.6231 Time: 1.75s  
Train Epoch [77/100] [19/20] Loss: 0.6282 Time: 1.75s  
Final training 77/99 loss: 0.6282 time 38.21s  
Fri Apr 4 08:34:22 2025 Epoch: 78  
Train Epoch [78/100] [0/20] Loss: 0.7127 Time: 4.82s  
Train Epoch [78/100] [1/20] Loss: 0.5399 Time: 1.76s  
Train Epoch [78/100] [2/20] Loss: 0.5430 Time: 1.76s  
Train Epoch [78/100] [3/20] Loss: 0.5057 Time: 1.77s  
Train Epoch [78/100] [4/20] Loss: 0.5893 Time: 1.75s  
Train Epoch [78/100] [5/20] Loss: 0.6032 Time: 1.75s  
Train Epoch [78/100] [6/20] Loss: 0.6081 Time: 1.76s  
Train Epoch [78/100] [7/20] Loss: 0.5939 Time: 1.75s  
Train Epoch [78/100] [8/20] Loss: 0.6213 Time: 1.75s  
Train Epoch [78/100] [9/20] Loss: 0.6267 Time: 1.75s  
Train Epoch [78/100] [10/20] Loss: 0.5806 Time: 1.75s  
Train Epoch [78/100] [11/20] Loss: 0.6156 Time: 1.75s

Train Epoch [78/100] [12/20] Loss: 0.6451 Time: 1.76s  
Train Epoch [78/100] [13/20] Loss: 0.6401 Time: 1.75s  
Train Epoch [78/100] [14/20] Loss: 0.6466 Time: 1.76s  
Train Epoch [78/100] [15/20] Loss: 0.6518 Time: 1.76s  
Train Epoch [78/100] [16/20] Loss: 0.6723 Time: 1.75s  
Train Epoch [78/100] [17/20] Loss: 0.6653 Time: 1.75s  
Train Epoch [78/100] [18/20] Loss: 0.6396 Time: 1.76s  
Train Epoch [78/100] [19/20] Loss: 0.6280 Time: 1.75s  
Final training 78/99 loss: 0.6280 time 38.23s  
Fri Apr 4 08:35:01 2025 Epoch: 79  
Train Epoch [79/100] [0/20] Loss: 0.4707 Time: 4.61s  
Train Epoch [79/100] [1/20] Loss: 0.4965 Time: 1.76s  
Train Epoch [79/100] [2/20] Loss: 0.5699 Time: 1.75s  
Train Epoch [79/100] [3/20] Loss: 0.5676 Time: 1.78s  
Train Epoch [79/100] [4/20] Loss: 0.5904 Time: 1.75s  
Train Epoch [79/100] [5/20] Loss: 0.5957 Time: 1.76s  
Train Epoch [79/100] [6/20] Loss: 0.6052 Time: 1.76s  
Train Epoch [79/100] [7/20] Loss: 0.5527 Time: 1.76s  
Train Epoch [79/100] [8/20] Loss: 0.5660 Time: 1.75s  
Train Epoch [79/100] [9/20] Loss: 0.5816 Time: 1.76s  
Train Epoch [79/100] [10/20] Loss: 0.5632 Time: 1.75s  
Train Epoch [79/100] [11/20] Loss: 0.5996 Time: 1.75s  
Train Epoch [79/100] [12/20] Loss: 0.5619 Time: 1.76s  
Train Epoch [79/100] [13/20] Loss: 0.5811 Time: 1.76s  
Train Epoch [79/100] [14/20] Loss: 0.5644 Time: 1.75s  
Train Epoch [79/100] [15/20] Loss: 0.5600 Time: 1.76s  
Train Epoch [79/100] [16/20] Loss: 0.5685 Time: 1.76s  
Train Epoch [79/100] [17/20] Loss: 0.5427 Time: 1.76s  
Train Epoch [79/100] [18/20] Loss: 0.5527 Time: 1.75s  
Train Epoch [79/100] [19/20] Loss: 0.5720 Time: 1.76s  
Final training 79/99 loss: 0.5720 time 38.04s  
Val Epoch [79/100] [0/6] Dice TC: 0.0637 Dice WT: 0.4637 Dice ET: 0.0000 Time: 16.98s  
Val Epoch [79/100] [1/6] Dice TC: 0.0000 Dice WT: 0.8680 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [79/100] [2/6] Dice TC: 0.8265 Dice WT: 0.7752 Dice ET: 0.0038 Time: 14.70s  
Val Epoch [79/100] [3/6] Dice TC: 0.0951 Dice WT: 0.8358 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [79/100] [4/6] Dice TC: 0.8499 Dice WT: 0.8599 Dice ET: 0.8500 Time: 14.69s  
Val Epoch [79/100] [5/6] Dice TC: 0.2452 Dice WT: 0.1938 Dice ET: 0.0000 Time: 14.69s  
Final validation stats 79/99 , dice\_tc: 0.24519133567810059 , dice\_wt: 0.193843334913  
25378 , dice\_et: 0.0 , Dice\_Avg: 0.1463448852300644 , time 90.50s  
Fri Apr 4 08:37:09 2025 Epoch: 80  
Train Epoch [80/100] [0/20] Loss: 0.1046 Time: 4.63s  
Train Epoch [80/100] [1/20] Loss: 0.4131 Time: 1.77s  
Train Epoch [80/100] [2/20] Loss: 0.4222 Time: 1.75s  
Train Epoch [80/100] [3/20] Loss: 0.4450 Time: 1.75s  
Train Epoch [80/100] [4/20] Loss: 0.4951 Time: 1.75s  
Train Epoch [80/100] [5/20] Loss: 0.4382 Time: 1.75s  
Train Epoch [80/100] [6/20] Loss: 0.4864 Time: 1.75s  
Train Epoch [80/100] [7/20] Loss: 0.5129 Time: 1.75s  
Train Epoch [80/100] [8/20] Loss: 0.5670 Time: 1.75s  
Train Epoch [80/100] [9/20] Loss: 0.5311 Time: 1.76s  
Train Epoch [80/100] [10/20] Loss: 0.4932 Time: 1.75s  
Train Epoch [80/100] [11/20] Loss: 0.5181 Time: 1.75s  
Train Epoch [80/100] [12/20] Loss: 0.5072 Time: 1.75s  
Train Epoch [80/100] [13/20] Loss: 0.5209 Time: 1.75s  
Train Epoch [80/100] [14/20] Loss: 0.5143 Time: 1.76s  
Train Epoch [80/100] [15/20] Loss: 0.5125 Time: 1.75s  
Train Epoch [80/100] [16/20] Loss: 0.5412 Time: 1.75s  
Train Epoch [80/100] [17/20] Loss: 0.5478 Time: 1.75s  
Train Epoch [80/100] [18/20] Loss: 0.5486 Time: 1.75s  
Train Epoch [80/100] [19/20] Loss: 0.5516 Time: 1.75s

Final training 80/99 loss: 0.5516 time 38.03s  
Fri Apr 4 08:37:47 2025 Epoch: 81

Train Epoch [81/100] [0/20] Loss: 0.9406 Time: 4.84s  
Train Epoch [81/100] [1/20] Loss: 0.5770 Time: 1.76s  
Train Epoch [81/100] [2/20] Loss: 0.6722 Time: 1.76s  
Train Epoch [81/100] [3/20] Loss: 0.6888 Time: 1.75s  
Train Epoch [81/100] [4/20] Loss: 0.6361 Time: 1.75s  
Train Epoch [81/100] [5/20] Loss: 0.6089 Time: 1.76s  
Train Epoch [81/100] [6/20] Loss: 0.6387 Time: 1.76s  
Train Epoch [81/100] [7/20] Loss: 0.6454 Time: 1.75s  
Train Epoch [81/100] [8/20] Loss: 0.5850 Time: 1.75s  
Train Epoch [81/100] [9/20] Loss: 0.6036 Time: 1.75s  
Train Epoch [81/100] [10/20] Loss: 0.6245 Time: 1.94s  
Train Epoch [81/100] [11/20] Loss: 0.6032 Time: 1.75s  
Train Epoch [81/100] [12/20] Loss: 0.6014 Time: 1.75s  
Train Epoch [81/100] [13/20] Loss: 0.5982 Time: 1.76s  
Train Epoch [81/100] [14/20] Loss: 0.6057 Time: 1.75s  
Train Epoch [81/100] [15/20] Loss: 0.6089 Time: 1.75s  
Train Epoch [81/100] [16/20] Loss: 0.5830 Time: 1.75s  
Train Epoch [81/100] [17/20] Loss: 0.5889 Time: 1.75s  
Train Epoch [81/100] [18/20] Loss: 0.5821 Time: 1.75s  
Train Epoch [81/100] [19/20] Loss: 0.6030 Time: 1.75s  
Final training 81/99 loss: 0.6030 time 38.42s  
Fri Apr 4 08:38:25 2025 Epoch: 82

Train Epoch [82/100] [0/20] Loss: 0.7425 Time: 4.81s  
Train Epoch [82/100] [1/20] Loss: 0.4460 Time: 1.75s  
Train Epoch [82/100] [2/20] Loss: 0.6307 Time: 1.76s  
Train Epoch [82/100] [3/20] Loss: 0.6300 Time: 1.77s  
Train Epoch [82/100] [4/20] Loss: 0.7040 Time: 1.76s  
Train Epoch [82/100] [5/20] Loss: 0.7015 Time: 1.75s  
Train Epoch [82/100] [6/20] Loss: 0.6212 Time: 1.75s  
Train Epoch [82/100] [7/20] Loss: 0.6276 Time: 1.75s  
Train Epoch [82/100] [8/20] Loss: 0.6325 Time: 1.75s  
Train Epoch [82/100] [9/20] Loss: 0.6131 Time: 1.75s  
Train Epoch [82/100] [10/20] Loss: 0.5967 Time: 1.75s  
Train Epoch [82/100] [11/20] Loss: 0.6303 Time: 1.76s  
Train Epoch [82/100] [12/20] Loss: 0.6288 Time: 1.75s  
Train Epoch [82/100] [13/20] Loss: 0.6361 Time: 1.75s  
Train Epoch [82/100] [14/20] Loss: 0.6020 Time: 1.75s  
Train Epoch [82/100] [15/20] Loss: 0.6088 Time: 1.75s  
Train Epoch [82/100] [16/20] Loss: 0.5970 Time: 1.75s  
Train Epoch [82/100] [17/20] Loss: 0.5913 Time: 1.75s  
Train Epoch [82/100] [18/20] Loss: 0.5753 Time: 1.75s  
Train Epoch [82/100] [19/20] Loss: 0.5809 Time: 1.75s  
Final training 82/99 loss: 0.5809 time 38.20s  
Fri Apr 4 08:39:04 2025 Epoch: 83

Train Epoch [83/100] [0/20] Loss: 0.3727 Time: 4.56s  
Train Epoch [83/100] [1/20] Loss: 0.6199 Time: 1.75s  
Train Epoch [83/100] [2/20] Loss: 0.4986 Time: 1.75s  
Train Epoch [83/100] [3/20] Loss: 0.5504 Time: 1.75s  
Train Epoch [83/100] [4/20] Loss: 0.6018 Time: 1.75s  
Train Epoch [83/100] [5/20] Loss: 0.6257 Time: 1.76s  
Train Epoch [83/100] [6/20] Loss: 0.5563 Time: 1.76s  
Train Epoch [83/100] [7/20] Loss: 0.5537 Time: 1.76s  
Train Epoch [83/100] [8/20] Loss: 0.5707 Time: 1.75s  
Train Epoch [83/100] [9/20] Loss: 0.5742 Time: 1.75s  
Train Epoch [83/100] [10/20] Loss: 0.5342 Time: 1.76s  
Train Epoch [83/100] [11/20] Loss: 0.5453 Time: 1.75s  
Train Epoch [83/100] [12/20] Loss: 0.5165 Time: 1.76s  
Train Epoch [83/100] [13/20] Loss: 0.5263 Time: 1.75s

Train Epoch [83/100] [14/20] Loss: 0.5574 Time: 1.75s  
Train Epoch [83/100] [15/20] Loss: 0.5828 Time: 1.75s  
Train Epoch [83/100] [16/20] Loss: 0.5785 Time: 1.76s  
Train Epoch [83/100] [17/20] Loss: 0.5860 Time: 1.75s  
Train Epoch [83/100] [18/20] Loss: 0.5923 Time: 1.75s  
Train Epoch [83/100] [19/20] Loss: 0.5930 Time: 1.75s  
Final training 83/99 loss: 0.5930 time 37.95s  
Fri Apr 4 08:39:42 2025 Epoch: 84  
Train Epoch [84/100] [0/20] Loss: 0.8553 Time: 4.90s  
Train Epoch [84/100] [1/20] Loss: 0.6822 Time: 1.76s  
Train Epoch [84/100] [2/20] Loss: 0.7073 Time: 1.76s  
Train Epoch [84/100] [3/20] Loss: 0.7085 Time: 1.76s  
Train Epoch [84/100] [4/20] Loss: 0.7072 Time: 1.75s  
Train Epoch [84/100] [5/20] Loss: 0.6718 Time: 1.76s  
Train Epoch [84/100] [6/20] Loss: 0.6742 Time: 1.75s  
Train Epoch [84/100] [7/20] Loss: 0.6134 Time: 1.75s  
Train Epoch [84/100] [8/20] Loss: 0.6562 Time: 1.75s  
Train Epoch [84/100] [9/20] Loss: 0.6247 Time: 1.76s  
Train Epoch [84/100] [10/20] Loss: 0.6266 Time: 1.75s  
Train Epoch [84/100] [11/20] Loss: 0.5857 Time: 1.76s  
Train Epoch [84/100] [12/20] Loss: 0.5904 Time: 1.75s  
Train Epoch [84/100] [13/20] Loss: 0.5948 Time: 1.76s  
Train Epoch [84/100] [14/20] Loss: 0.6218 Time: 1.75s  
Train Epoch [84/100] [15/20] Loss: 0.6355 Time: 1.75s  
Train Epoch [84/100] [16/20] Loss: 0.6278 Time: 1.75s  
Train Epoch [84/100] [17/20] Loss: 0.6147 Time: 1.75s  
Train Epoch [84/100] [18/20] Loss: 0.6350 Time: 1.75s  
Train Epoch [84/100] [19/20] Loss: 0.6445 Time: 1.75s  
Final training 84/99 loss: 0.6445 time 38.29s  
Fri Apr 4 08:40:20 2025 Epoch: 85  
Train Epoch [85/100] [0/20] Loss: 0.2034 Time: 4.95s  
Train Epoch [85/100] [1/20] Loss: 0.5826 Time: 1.75s  
Train Epoch [85/100] [2/20] Loss: 0.7217 Time: 1.76s  
Train Epoch [85/100] [3/20] Loss: 0.7150 Time: 1.77s  
Train Epoch [85/100] [4/20] Loss: 0.6446 Time: 1.75s  
Train Epoch [85/100] [5/20] Loss: 0.6449 Time: 1.76s  
Train Epoch [85/100] [6/20] Loss: 0.6541 Time: 1.75s  
Train Epoch [85/100] [7/20] Loss: 0.6686 Time: 1.75s  
Train Epoch [85/100] [8/20] Loss: 0.6381 Time: 1.76s  
Train Epoch [85/100] [9/20] Loss: 0.6499 Time: 1.75s  
Train Epoch [85/100] [10/20] Loss: 0.6266 Time: 1.75s  
Train Epoch [85/100] [11/20] Loss: 0.6342 Time: 1.75s  
Train Epoch [85/100] [12/20] Loss: 0.6274 Time: 1.76s  
Train Epoch [85/100] [13/20] Loss: 0.5928 Time: 1.75s  
Train Epoch [85/100] [14/20] Loss: 0.5990 Time: 1.75s  
Train Epoch [85/100] [15/20] Loss: 0.6034 Time: 1.75s  
Train Epoch [85/100] [16/20] Loss: 0.6120 Time: 1.76s  
Train Epoch [85/100] [17/20] Loss: 0.6266 Time: 1.75s  
Train Epoch [85/100] [18/20] Loss: 0.6215 Time: 1.75s  
Train Epoch [85/100] [19/20] Loss: 0.6242 Time: 1.75s  
Final training 85/99 loss: 0.6242 time 38.37s  
Fri Apr 4 08:40:58 2025 Epoch: 86  
Train Epoch [86/100] [0/20] Loss: 0.6542 Time: 4.62s  
Train Epoch [86/100] [1/20] Loss: 0.3986 Time: 1.75s  
Train Epoch [86/100] [2/20] Loss: 0.5990 Time: 1.75s  
Train Epoch [86/100] [3/20] Loss: 0.5127 Time: 1.76s  
Train Epoch [86/100] [4/20] Loss: 0.5739 Time: 1.75s  
Train Epoch [86/100] [5/20] Loss: 0.5022 Time: 1.75s  
Train Epoch [86/100] [6/20] Loss: 0.5314 Time: 1.75s  
Train Epoch [86/100] [7/20] Loss: 0.5412 Time: 1.76s

Train Epoch [86/100] [8/20] Loss: 0.5814 Time: 1.76s  
Train Epoch [86/100] [9/20] Loss: 0.5722 Time: 1.75s  
Train Epoch [86/100] [10/20] Loss: 0.6002 Time: 1.75s  
Train Epoch [86/100] [11/20] Loss: 0.6087 Time: 1.76s  
Train Epoch [86/100] [12/20] Loss: 0.6388 Time: 1.75s  
Train Epoch [86/100] [13/20] Loss: 0.6367 Time: 1.76s  
Train Epoch [86/100] [14/20] Loss: 0.6203 Time: 1.75s  
Train Epoch [86/100] [15/20] Loss: 0.6095 Time: 1.76s  
Train Epoch [86/100] [16/20] Loss: 0.6325 Time: 1.75s  
Train Epoch [86/100] [17/20] Loss: 0.6362 Time: 1.75s  
Train Epoch [86/100] [18/20] Loss: 0.6385 Time: 1.75s  
Train Epoch [86/100] [19/20] Loss: 0.6566 Time: 1.76s  
Final training 86/99 loss: 0.6566 time 38.01s  
Fri Apr 4 08:41:36 2025 Epoch: 87  
Train Epoch [87/100] [0/20] Loss: 0.7020 Time: 4.52s  
Train Epoch [87/100] [1/20] Loss: 0.6769 Time: 1.76s  
Train Epoch [87/100] [2/20] Loss: 0.7846 Time: 1.76s  
Train Epoch [87/100] [3/20] Loss: 0.8012 Time: 1.76s  
Train Epoch [87/100] [4/20] Loss: 0.7144 Time: 1.76s  
Train Epoch [87/100] [5/20] Loss: 0.6164 Time: 1.75s  
Train Epoch [87/100] [6/20] Loss: 0.6323 Time: 1.75s  
Train Epoch [87/100] [7/20] Loss: 0.6506 Time: 1.76s  
Train Epoch [87/100] [8/20] Loss: 0.5907 Time: 1.76s  
Train Epoch [87/100] [9/20] Loss: 0.6298 Time: 1.75s  
Train Epoch [87/100] [10/20] Loss: 0.6245 Time: 1.75s  
Train Epoch [87/100] [11/20] Loss: 0.5841 Time: 1.76s  
Train Epoch [87/100] [12/20] Loss: 0.5540 Time: 1.76s  
Train Epoch [87/100] [13/20] Loss: 0.5859 Time: 1.76s  
Train Epoch [87/100] [14/20] Loss: 0.5975 Time: 1.75s  
Train Epoch [87/100] [15/20] Loss: 0.6222 Time: 1.76s  
Train Epoch [87/100] [16/20] Loss: 0.6043 Time: 1.75s  
Train Epoch [87/100] [17/20] Loss: 0.6079 Time: 1.75s  
Train Epoch [87/100] [18/20] Loss: 0.6082 Time: 1.75s  
Train Epoch [87/100] [19/20] Loss: 0.6139 Time: 1.76s  
Final training 87/99 loss: 0.6139 time 37.91s  
Fri Apr 4 08:42:14 2025 Epoch: 88  
Train Epoch [88/100] [0/20] Loss: 0.7597 Time: 4.83s  
Train Epoch [88/100] [1/20] Loss: 0.7494 Time: 1.75s  
Train Epoch [88/100] [2/20] Loss: 0.6845 Time: 1.77s  
Train Epoch [88/100] [3/20] Loss: 0.6914 Time: 1.79s  
Train Epoch [88/100] [4/20] Loss: 0.6766 Time: 1.75s  
Train Epoch [88/100] [5/20] Loss: 0.6449 Time: 1.76s  
Train Epoch [88/100] [6/20] Loss: 0.5781 Time: 1.75s  
Train Epoch [88/100] [7/20] Loss: 0.6167 Time: 1.75s  
Train Epoch [88/100] [8/20] Loss: 0.5972 Time: 1.75s  
Train Epoch [88/100] [9/20] Loss: 0.6033 Time: 1.76s  
Train Epoch [88/100] [10/20] Loss: 0.6282 Time: 1.75s  
Train Epoch [88/100] [11/20] Loss: 0.6592 Time: 1.75s  
Train Epoch [88/100] [12/20] Loss: 0.6404 Time: 1.76s  
Train Epoch [88/100] [13/20] Loss: 0.6174 Time: 1.76s  
Train Epoch [88/100] [14/20] Loss: 0.6179 Time: 1.76s  
Train Epoch [88/100] [15/20] Loss: 0.6294 Time: 1.75s  
Train Epoch [88/100] [16/20] Loss: 0.6221 Time: 1.75s  
Train Epoch [88/100] [17/20] Loss: 0.6372 Time: 1.76s  
Train Epoch [88/100] [18/20] Loss: 0.6100 Time: 1.75s  
Train Epoch [88/100] [19/20] Loss: 0.6124 Time: 1.75s  
Final training 88/99 loss: 0.6124 time 38.28s  
Fri Apr 4 08:42:53 2025 Epoch: 89  
Train Epoch [89/100] [0/20] Loss: 0.7051 Time: 4.83s  
Train Epoch [89/100] [1/20] Loss: 0.6427 Time: 1.76s

Train Epoch [89/100] [2/20] Loss: 0.5588 Time: 1.76s  
Train Epoch [89/100] [3/20] Loss: 0.5992 Time: 1.76s  
Train Epoch [89/100] [4/20] Loss: 0.5774 Time: 1.75s  
Train Epoch [89/100] [5/20] Loss: 0.6379 Time: 1.76s  
Train Epoch [89/100] [6/20] Loss: 0.6896 Time: 1.76s  
Train Epoch [89/100] [7/20] Loss: 0.6542 Time: 1.75s  
Train Epoch [89/100] [8/20] Loss: 0.6580 Time: 1.75s  
Train Epoch [89/100] [9/20] Loss: 0.6424 Time: 1.76s  
Train Epoch [89/100] [10/20] Loss: 0.6173 Time: 1.76s  
Train Epoch [89/100] [11/20] Loss: 0.6258 Time: 1.75s  
Train Epoch [89/100] [12/20] Loss: 0.6341 Time: 1.75s  
Train Epoch [89/100] [13/20] Loss: 0.6474 Time: 1.76s  
Train Epoch [89/100] [14/20] Loss: 0.6478 Time: 1.76s  
Train Epoch [89/100] [15/20] Loss: 0.6161 Time: 1.75s  
Train Epoch [89/100] [16/20] Loss: 0.6340 Time: 1.76s  
Train Epoch [89/100] [17/20] Loss: 0.6502 Time: 1.76s  
Train Epoch [89/100] [18/20] Loss: 0.6531 Time: 1.75s  
Train Epoch [89/100] [19/20] Loss: 0.6575 Time: 1.76s  
Final training 89/99 loss: 0.6575 time 38.26s  
Val Epoch [89/100] [0/6] Dice TC: 0.1882 Dice WT: 0.5124 Dice ET: 0.0000 Time: 16.97s  
Val Epoch [89/100] [1/6] Dice TC: 0.0000 Dice WT: 0.7243 Dice ET: 0.0001 Time: 14.70s  
Val Epoch [89/100] [2/6] Dice TC: 0.8196 Dice WT: 0.3109 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [89/100] [3/6] Dice TC: 0.1211 Dice WT: 0.5094 Dice ET: 0.0000 Time: 14.70s  
Val Epoch [89/100] [4/6] Dice TC: 0.5710 Dice WT: 0.7652 Dice ET: 0.7472 Time: 14.69s  
Val Epoch [89/100] [5/6] Dice TC: 0.2825 Dice WT: 0.1577 Dice ET: 0.0000 Time: 14.70s  
Final validation stats 89/99 , dice\_tc: 0.28253600001335144 , dice\_wt: 0.157708346843  
71948 , dice\_et: 0.0 , Dice\_Avg: 0.1467481106519699 , time 90.49s  
Fri Apr 4 08:45:01 2025 Epoch: 90  
Train Epoch [90/100] [0/20] Loss: 0.2097 Time: 4.86s  
Train Epoch [90/100] [1/20] Loss: 0.5772 Time: 1.76s  
Train Epoch [90/100] [2/20] Loss: 0.5240 Time: 1.76s  
Train Epoch [90/100] [3/20] Loss: 0.5588 Time: 1.76s  
Train Epoch [90/100] [4/20] Loss: 0.6185 Time: 1.75s  
Train Epoch [90/100] [5/20] Loss: 0.6162 Time: 1.75s  
Train Epoch [90/100] [6/20] Loss: 0.5684 Time: 1.76s  
Train Epoch [90/100] [7/20] Loss: 0.5242 Time: 1.76s  
Train Epoch [90/100] [8/20] Loss: 0.5473 Time: 1.76s  
Train Epoch [90/100] [9/20] Loss: 0.5663 Time: 1.76s  
Train Epoch [90/100] [10/20] Loss: 0.6058 Time: 1.75s  
Train Epoch [90/100] [11/20] Loss: 0.6384 Time: 1.75s  
Train Epoch [90/100] [12/20] Loss: 0.6268 Time: 1.76s  
Train Epoch [90/100] [13/20] Loss: 0.6169 Time: 1.76s  
Train Epoch [90/100] [14/20] Loss: 0.6251 Time: 1.75s  
Train Epoch [90/100] [15/20] Loss: 0.6338 Time: 1.76s  
Train Epoch [90/100] [16/20] Loss: 0.6369 Time: 1.76s  
Train Epoch [90/100] [17/20] Loss: 0.6381 Time: 1.76s  
Train Epoch [90/100] [18/20] Loss: 0.6526 Time: 1.76s  
Train Epoch [90/100] [19/20] Loss: 0.6699 Time: 1.75s  
Final training 90/99 loss: 0.6699 time 38.27s  
Fri Apr 4 08:45:40 2025 Epoch: 91  
Train Epoch [91/100] [0/20] Loss: 0.8248 Time: 4.53s  
Train Epoch [91/100] [1/20] Loss: 0.4946 Time: 1.77s  
Train Epoch [91/100] [2/20] Loss: 0.4266 Time: 1.76s  
Train Epoch [91/100] [3/20] Loss: 0.5625 Time: 1.75s  
Train Epoch [91/100] [4/20] Loss: 0.5331 Time: 1.82s  
Train Epoch [91/100] [5/20] Loss: 0.4838 Time: 1.75s  
Train Epoch [91/100] [6/20] Loss: 0.4828 Time: 1.76s  
Train Epoch [91/100] [7/20] Loss: 0.4503 Time: 1.76s  
Train Epoch [91/100] [8/20] Loss: 0.4666 Time: 1.76s  
Train Epoch [91/100] [9/20] Loss: 0.4896 Time: 1.76s

Train Epoch [91/100] [10/20] Loss: 0.5328 Time: 1.76s  
Train Epoch [91/100] [11/20] Loss: 0.5434 Time: 1.75s  
Train Epoch [91/100] [12/20] Loss: 0.5469 Time: 1.76s  
Train Epoch [91/100] [13/20] Loss: 0.5541 Time: 1.76s  
Train Epoch [91/100] [14/20] Loss: 0.5822 Time: 1.76s  
Train Epoch [91/100] [15/20] Loss: 0.5748 Time: 1.76s  
Train Epoch [91/100] [16/20] Loss: 0.5909 Time: 1.76s  
Train Epoch [91/100] [17/20] Loss: 0.5984 Time: 1.76s  
Train Epoch [91/100] [18/20] Loss: 0.5974 Time: 1.76s  
Train Epoch [91/100] [19/20] Loss: 0.6039 Time: 1.76s  
Final training 91/99 loss: 0.6039 time 38.06s  
Fri Apr 4 08:46:18 2025 Epoch: 92  
Train Epoch [92/100] [0/20] Loss: 1.0000 Time: 4.58s  
Train Epoch [92/100] [1/20] Loss: 0.8299 Time: 1.77s  
Train Epoch [92/100] [2/20] Loss: 0.7050 Time: 1.76s  
Train Epoch [92/100] [3/20] Loss: 0.7787 Time: 1.75s  
Train Epoch [92/100] [4/20] Loss: 0.8230 Time: 1.76s  
Train Epoch [92/100] [5/20] Loss: 0.7771 Time: 1.75s  
Train Epoch [92/100] [6/20] Loss: 0.7662 Time: 1.75s  
Train Epoch [92/100] [7/20] Loss: 0.7158 Time: 1.76s  
Train Epoch [92/100] [8/20] Loss: 0.7151 Time: 1.76s  
Train Epoch [92/100] [9/20] Loss: 0.7206 Time: 1.76s  
Train Epoch [92/100] [10/20] Loss: 0.7123 Time: 1.76s  
Train Epoch [92/100] [11/20] Loss: 0.7362 Time: 1.76s  
Train Epoch [92/100] [12/20] Loss: 0.6917 Time: 1.76s  
Train Epoch [92/100] [13/20] Loss: 0.7000 Time: 1.76s  
Train Epoch [92/100] [14/20] Loss: 0.7030 Time: 1.76s  
Train Epoch [92/100] [15/20] Loss: 0.6885 Time: 1.76s  
Train Epoch [92/100] [16/20] Loss: 0.6877 Time: 1.76s  
Train Epoch [92/100] [17/20] Loss: 0.6973 Time: 1.76s  
Train Epoch [92/100] [18/20] Loss: 0.7038 Time: 1.76s  
Train Epoch [92/100] [19/20] Loss: 0.6796 Time: 1.76s  
Final training 92/99 loss: 0.6796 time 38.04s  
Fri Apr 4 08:46:56 2025 Epoch: 93  
Train Epoch [93/100] [0/20] Loss: 0.7472 Time: 4.36s  
Train Epoch [93/100] [1/20] Loss: 0.7299 Time: 1.76s  
Train Epoch [93/100] [2/20] Loss: 0.6577 Time: 1.82s  
Train Epoch [93/100] [3/20] Loss: 0.5867 Time: 1.76s  
Train Epoch [93/100] [4/20] Loss: 0.6477 Time: 1.75s  
Train Epoch [93/100] [5/20] Loss: 0.6815 Time: 1.75s  
Train Epoch [93/100] [6/20] Loss: 0.6648 Time: 1.75s  
Train Epoch [93/100] [7/20] Loss: 0.6789 Time: 1.76s  
Train Epoch [93/100] [8/20] Loss: 0.6936 Time: 1.76s  
Train Epoch [93/100] [9/20] Loss: 0.6962 Time: 1.76s  
Train Epoch [93/100] [10/20] Loss: 0.6441 Time: 1.76s  
Train Epoch [93/100] [11/20] Loss: 0.6084 Time: 1.76s  
Train Epoch [93/100] [12/20] Loss: 0.5730 Time: 1.76s  
Train Epoch [93/100] [13/20] Loss: 0.5840 Time: 1.76s  
Train Epoch [93/100] [14/20] Loss: 0.5902 Time: 1.76s  
Train Epoch [93/100] [15/20] Loss: 0.6158 Time: 1.76s  
Train Epoch [93/100] [16/20] Loss: 0.6217 Time: 1.75s  
Train Epoch [93/100] [17/20] Loss: 0.5987 Time: 1.76s  
Train Epoch [93/100] [18/20] Loss: 0.5870 Time: 1.76s  
Train Epoch [93/100] [19/20] Loss: 0.5944 Time: 1.75s  
Final training 93/99 loss: 0.5944 time 37.85s  
Fri Apr 4 08:47:33 2025 Epoch: 94  
Train Epoch [94/100] [0/20] Loss: 0.1657 Time: 4.67s  
Train Epoch [94/100] [1/20] Loss: 0.5828 Time: 1.75s  
Train Epoch [94/100] [2/20] Loss: 0.7219 Time: 1.76s  
Train Epoch [94/100] [3/20] Loss: 0.7290 Time: 1.75s

Train Epoch [94/100] [4/20] Loss: 0.6775 Time: 1.75s  
Train Epoch [94/100] [5/20] Loss: 0.7312 Time: 1.75s  
Train Epoch [94/100] [6/20] Loss: 0.7541 Time: 1.75s  
Train Epoch [94/100] [7/20] Loss: 0.6846 Time: 1.75s  
Train Epoch [94/100] [8/20] Loss: 0.7192 Time: 1.75s  
Train Epoch [94/100] [9/20] Loss: 0.7473 Time: 1.75s  
Train Epoch [94/100] [10/20] Loss: 0.7703 Time: 1.76s  
Train Epoch [94/100] [11/20] Loss: 0.7692 Time: 1.75s  
Train Epoch [94/100] [12/20] Loss: 0.7862 Time: 1.76s  
Train Epoch [94/100] [13/20] Loss: 0.7617 Time: 1.76s  
Train Epoch [94/100] [14/20] Loss: 0.7399 Time: 1.76s  
Train Epoch [94/100] [15/20] Loss: 0.7401 Time: 1.75s  
Train Epoch [94/100] [16/20] Loss: 0.7060 Time: 1.75s  
Train Epoch [94/100] [17/20] Loss: 0.7100 Time: 1.75s  
Train Epoch [94/100] [18/20] Loss: 0.7249 Time: 1.75s  
Train Epoch [94/100] [19/20] Loss: 0.7236 Time: 1.75s  
Final training 94/99 loss: 0.7236 time 38.07s  
Fri Apr 4 08:48:12 2025 Epoch: 95  
Train Epoch [95/100] [0/20] Loss: 0.2480 Time: 4.78s  
Train Epoch [95/100] [1/20] Loss: 0.5054 Time: 1.76s  
Train Epoch [95/100] [2/20] Loss: 0.5002 Time: 1.75s  
Train Epoch [95/100] [3/20] Loss: 0.5710 Time: 1.76s  
Train Epoch [95/100] [4/20] Loss: 0.5443 Time: 1.75s  
Train Epoch [95/100] [5/20] Loss: 0.5988 Time: 1.75s  
Train Epoch [95/100] [6/20] Loss: 0.6129 Time: 1.76s  
Train Epoch [95/100] [7/20] Loss: 0.6087 Time: 1.75s  
Train Epoch [95/100] [8/20] Loss: 0.6431 Time: 1.75s  
Train Epoch [95/100] [9/20] Loss: 0.6660 Time: 1.75s  
Train Epoch [95/100] [10/20] Loss: 0.6748 Time: 1.76s  
Train Epoch [95/100] [11/20] Loss: 0.6747 Time: 1.75s  
Train Epoch [95/100] [12/20] Loss: 0.6396 Time: 1.75s  
Train Epoch [95/100] [13/20] Loss: 0.6537 Time: 1.76s  
Train Epoch [95/100] [14/20] Loss: 0.6591 Time: 1.75s  
Train Epoch [95/100] [15/20] Loss: 0.6566 Time: 1.75s  
Train Epoch [95/100] [16/20] Loss: 0.6766 Time: 1.75s  
Train Epoch [95/100] [17/20] Loss: 0.6751 Time: 1.76s  
Train Epoch [95/100] [18/20] Loss: 0.6866 Time: 1.76s  
Train Epoch [95/100] [19/20] Loss: 0.6595 Time: 1.75s  
Final training 95/99 loss: 0.6595 time 38.18s  
Fri Apr 4 08:48:50 2025 Epoch: 96  
Train Epoch [96/100] [0/20] Loss: 0.7080 Time: 4.66s  
Train Epoch [96/100] [1/20] Loss: 0.8142 Time: 1.76s  
Train Epoch [96/100] [2/20] Loss: 0.7804 Time: 1.77s  
Train Epoch [96/100] [3/20] Loss: 0.7940 Time: 1.76s  
Train Epoch [96/100] [4/20] Loss: 0.7570 Time: 1.75s  
Train Epoch [96/100] [5/20] Loss: 0.7404 Time: 1.75s  
Train Epoch [96/100] [6/20] Loss: 0.7051 Time: 1.75s  
Train Epoch [96/100] [7/20] Loss: 0.7139 Time: 1.76s  
Train Epoch [96/100] [8/20] Loss: 0.6553 Time: 1.76s  
Train Epoch [96/100] [9/20] Loss: 0.6549 Time: 1.75s  
Train Epoch [96/100] [10/20] Loss: 0.6808 Time: 1.76s  
Train Epoch [96/100] [11/20] Loss: 0.6333 Time: 1.76s  
Train Epoch [96/100] [12/20] Loss: 0.6364 Time: 1.76s  
Train Epoch [96/100] [13/20] Loss: 0.6191 Time: 1.75s  
Train Epoch [96/100] [14/20] Loss: 0.6445 Time: 1.75s  
Train Epoch [96/100] [15/20] Loss: 0.6667 Time: 1.75s  
Train Epoch [96/100] [16/20] Loss: 0.6863 Time: 1.76s  
Train Epoch [96/100] [17/20] Loss: 0.6793 Time: 1.75s  
Train Epoch [96/100] [18/20] Loss: 0.6781 Time: 1.76s  
Train Epoch [96/100] [19/20] Loss: 0.6509 Time: 1.76s

Final training 96/99 loss: 0.6509 time 38.08s  
Fri Apr 4 08:49:28 2025 Epoch: 97  
Train Epoch [97/100] [0/20] Loss: 0.6328 Time: 4.40s  
Train Epoch [97/100] [1/20] Loss: 0.5894 Time: 1.77s  
Train Epoch [97/100] [2/20] Loss: 0.7263 Time: 1.76s  
Train Epoch [97/100] [3/20] Loss: 0.5945 Time: 1.76s  
Train Epoch [97/100] [4/20] Loss: 0.6282 Time: 1.75s  
Train Epoch [97/100] [5/20] Loss: 0.6590 Time: 1.75s  
Train Epoch [97/100] [6/20] Loss: 0.6590 Time: 1.75s  
Train Epoch [97/100] [7/20] Loss: 0.6673 Time: 1.76s  
Train Epoch [97/100] [8/20] Loss: 0.7042 Time: 1.76s  
Train Epoch [97/100] [9/20] Loss: 0.6989 Time: 1.76s  
Train Epoch [97/100] [10/20] Loss: 0.6779 Time: 1.76s  
Train Epoch [97/100] [11/20] Loss: 0.6777 Time: 1.76s  
Train Epoch [97/100] [12/20] Loss: 0.6622 Time: 1.76s  
Train Epoch [97/100] [13/20] Loss: 0.6617 Time: 1.76s  
Train Epoch [97/100] [14/20] Loss: 0.6266 Time: 1.76s  
Train Epoch [97/100] [15/20] Loss: 0.5974 Time: 1.75s  
Train Epoch [97/100] [16/20] Loss: 0.6041 Time: 1.76s  
Train Epoch [97/100] [17/20] Loss: 0.6261 Time: 1.76s  
Train Epoch [97/100] [18/20] Loss: 0.6129 Time: 1.76s  
Train Epoch [97/100] [19/20] Loss: 0.6177 Time: 1.76s  
Final training 97/99 loss: 0.6177 time 37.84s  
Fri Apr 4 08:50:06 2025 Epoch: 98  
Train Epoch [98/100] [0/20] Loss: 0.4494 Time: 4.77s  
Train Epoch [98/100] [1/20] Loss: 0.7247 Time: 1.76s  
Train Epoch [98/100] [2/20] Loss: 0.6999 Time: 1.78s  
Train Epoch [98/100] [3/20] Loss: 0.7750 Time: 1.77s  
Train Epoch [98/100] [4/20] Loss: 0.6382 Time: 1.75s  
Train Epoch [98/100] [5/20] Loss: 0.5976 Time: 1.76s  
Train Epoch [98/100] [6/20] Loss: 0.6271 Time: 1.76s  
Train Epoch [98/100] [7/20] Loss: 0.6555 Time: 1.75s  
Train Epoch [98/100] [8/20] Loss: 0.6231 Time: 1.76s  
Train Epoch [98/100] [9/20] Loss: 0.6030 Time: 1.76s  
Train Epoch [98/100] [10/20] Loss: 0.6067 Time: 1.76s  
Train Epoch [98/100] [11/20] Loss: 0.6101 Time: 1.75s  
Train Epoch [98/100] [12/20] Loss: 0.6148 Time: 1.76s  
Train Epoch [98/100] [13/20] Loss: 0.6215 Time: 1.76s  
Train Epoch [98/100] [14/20] Loss: 0.6114 Time: 1.76s  
Train Epoch [98/100] [15/20] Loss: 0.5816 Time: 1.76s  
Train Epoch [98/100] [16/20] Loss: 0.5921 Time: 1.76s  
Train Epoch [98/100] [17/20] Loss: 0.6003 Time: 1.75s  
Train Epoch [98/100] [18/20] Loss: 0.5802 Time: 1.75s  
Train Epoch [98/100] [19/20] Loss: 0.6012 Time: 1.75s  
Final training 98/99 loss: 0.6012 time 38.21s  
Fri Apr 4 08:50:44 2025 Epoch: 99  
Train Epoch [99/100] [0/20] Loss: 0.6816 Time: 4.74s  
Train Epoch [99/100] [1/20] Loss: 0.6219 Time: 1.76s  
Train Epoch [99/100] [2/20] Loss: 0.7479 Time: 1.78s  
Train Epoch [99/100] [3/20] Loss: 0.7191 Time: 1.76s  
Train Epoch [99/100] [4/20] Loss: 0.6649 Time: 1.75s  
Train Epoch [99/100] [5/20] Loss: 0.6724 Time: 1.76s  
Train Epoch [99/100] [6/20] Loss: 0.7179 Time: 1.76s  
Train Epoch [99/100] [7/20] Loss: 0.6447 Time: 1.75s  
Train Epoch [99/100] [8/20] Loss: 0.6140 Time: 1.75s  
Train Epoch [99/100] [9/20] Loss: 0.6189 Time: 1.75s  
Train Epoch [99/100] [10/20] Loss: 0.6112 Time: 1.76s  
Train Epoch [99/100] [11/20] Loss: 0.5996 Time: 1.75s  
Train Epoch [99/100] [12/20] Loss: 0.6304 Time: 1.75s  
Train Epoch [99/100] [13/20] Loss: 0.5919 Time: 1.75s

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Train Epoch [99/100] [14/20] Loss: 0.6156 Time: 1.75s
Train Epoch [99/100] [15/20] Loss: 0.6125 Time: 1.76s
Train Epoch [99/100] [16/20] Loss: 0.6169 Time: 1.75s
Train Epoch [99/100] [17/20] Loss: 0.6239 Time: 1.75s
Train Epoch [99/100] [18/20] Loss: 0.5973 Time: 1.75s
Train Epoch [99/100] [19/20] Loss: 0.6000 Time: 1.75s
Final training 99/99 loss: 0.6000 time 38.15s
Val Epoch [99/100] [0/6] Dice TC: 0.0003 Dice WT: 0.4133 Dice ET: 0.0000 Time: 16.87s
Val Epoch [99/100] [1/6] Dice TC: 0.0001 Dice WT: 0.8206 Dice ET: 0.0001 Time: 14.70s
Val Epoch [99/100] [2/6] Dice TC: 0.8042 Dice WT: 0.6562 Dice ET: 0.0017 Time: 14.70s
Val Epoch [99/100] [3/6] Dice TC: 0.0949 Dice WT: 0.6647 Dice ET: 0.0000 Time: 14.69s
Val Epoch [99/100] [4/6] Dice TC: 0.8383 Dice WT: 0.7956 Dice ET: 0.8210 Time: 14.69s
Val Epoch [99/100] [5/6] Dice TC: 0.0852 Dice WT: 0.1027 Dice ET: 0.0000 Time: 14.69s
Final validation stats 99/99 , dice_tc: 0.08517646044492722 , dice_wt: 0.102667003870
01038 , dice_et: 0.0 , Dice_Avg: 0.06261449307203293 , time 90.39s
Training Finished! Best Accuracy: 0.3515070974826813
Training completed, best average Dice score: 0.3515
```

```
In [14]: print(f"train completed, best average dice: {val_acc_max:.4f} ")
```

```
train completed, best average dice: 0.3515
```

```
In [15]: plt.figure("train", (12, 6))
plt.subplot(1, 2, 1)
plt.title("Epoch Average Loss")
plt.xlabel("epoch")
plt.plot(trains_epoch, loss_epochs, color="red")
plt.subplot(1, 2, 2)
plt.title("Val Mean Dice")
plt.xlabel("epoch")
plt.plot(trains_epoch, dices_avg, color="green")
plt.show()
plt.figure("train", (18, 6))
plt.subplot(1, 3, 1)
plt.title("Val Mean Dice TC")
plt.xlabel("epoch")
plt.plot(trains_epoch, dices_tc, color="blue")
plt.subplot(1, 3, 2)
plt.title("Val Mean Dice WT")
plt.xlabel("epoch")
plt.plot(trains_epoch, dices_wt, color="brown")
plt.subplot(1, 3, 3)
plt.title("Val Mean Dice ET")
plt.xlabel("epoch")
plt.plot(trains_epoch, dices_et, color="purple")
plt.show()
```

