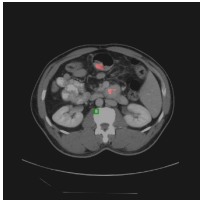


Stage 1

Question: pancreas cancer segmentation.
Reason: In a healthy abdomen, the pancreas is situated retroperitoneally, extending from the duodenum to the spleen, with its head positioned anterior to the inferior vena cava and posterior to the gastric antrum. Surrounding anatomical structures include the liver on the right, the spleen on the left, and the kidneys posteriorly, while the portal vein and superior mesenteric artery run along the pancreatic body. In contrast, the identification of lesions within the pancreatic head reveals a focal hypodense region that exhibits reduced attenuation compared to the adjacent pancreatic tissue, indicating potential necrosis or cystic degeneration. This lesion is characterized by irregular margins and subtle infiltration into the surrounding fat planes, which raises concerns for invasive growth. Additionally, there is a notable absence of calcifications or hemorrhagic features within the affected area.
Answer: The Pancreas Cancer is located at [[236, 275, 248, 289]]. The mask is <seg>.



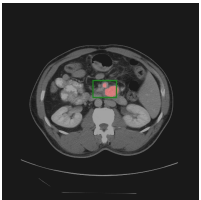
Input



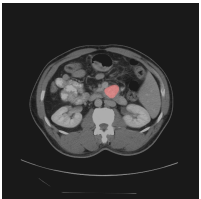
Stage 1 Output
Dice = 20.40%

Stage 2

Question: pancreas cancer segmentation.
Reason: In a typical abdominal CT scan, the pancreas presents as a homogeneous structure extending from the duodenum to the spleen, exhibiting clear margins and consistent density, while being surrounded by vital anatomical features such as the liver on the right, kidneys posteriorly, and bowel loops anteriorly, with vascular structures like the superior mesenteric artery and vein traversing its anterior aspect. In contrast, when assessing pathological conditions, specific abnormalities may include irregular margins, heterogeneous density, and potential displacement of adjacent vessels, indicating possible mass effect or invasion into surrounding tissues, such as the splenic vein, which could suggest advanced disease. Additionally, the presence of peri-pancreatic fat stranding may indicate inflammatory or infiltrative changes.
Answer: The Pancreas Cancer is located at [[235, 200, 298, 246]]. The mask is <seg>.



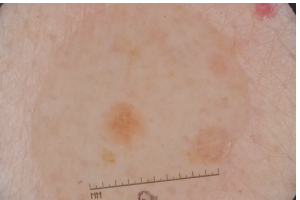
Stage 2 Output
Dice = 83.80%



Ground Truth

Stage 1

Question: Using this image, outline the pigmented lesion.
Reason: In the process of identifying lesions from normal tissue, the surrounding skin typically displays a uniform pinkish-tan hue with subtle linear patterns that represent the distribution of collagen fibers, alongside sparse hair follicles and sebaceous glands, which are characterized by their small, round, and uniformly distributed appearance. In contrast, the lesion itself is centrally located within the examined area and exhibits an irregular shape with scalloped margins, indicative of asymmetry. Its coloration is heterogeneous, featuring a central region of dark brown or black pigmentation, suggestive of melanin accumulation, along with peripheral areas of lighter tan and reddish tones, which may indicate inflammation or vascular changes. Additionally, the lesion presents with a disrupted pigment network, where lines are irregularly spaced and poorly defined, and there are no visible signs of a halo effect or regression patterns.
Answer: The pigmented lesion is located at [[67, 15, 439, 338]]. The mask is <seg>.



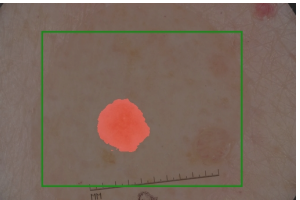
Input



Stage 1 Output
Dice = 16.77%

Stage 2

Question: Using this image, outline the pigmented lesion.
Reason: In a typical dermoscopic examination of normal skin, the anatomical background reveals symmetrically distributed follicular openings, uniform flesh-tone pigmentation, and intact epidermal ridges, while adjacent structures such as hair follicles, sebaceous glands, and vascular patterns remain unaffected, indicating a lack of significant pathological changes in surrounding tissue. In contrast, when assessing pathological conditions, specific features of abnormal regions include irregular borders with scalloping and potential ulceration, heterogeneous pigmentation that may present areas of hyperpigmentation or hypopigmentation, and structural disarray such as disrupted pigment networks and asymmetric vascular patterns, which deviate from the expected homogeneity of benign lesions. Additionally, these abnormal areas often exhibit signs of asymmetry in color distribution, irregular margins, and potential signs of regression, such as dotted vessels or crustation.
Answer: The pigmented lesion is located at [[73, 48, 419, 315]]. The mask is <seg>.



Stage 2 Output
Dice = 82.91%



Ground Truth

Prompt	Ground Truth	MedPLIB	SEG-Zero (Tr)	Stage 1	Stage 2
Please highlight the thyroid nodule.		 Dice : 14.66%	 Dice : 0%	 Dice : 90.06%	 Dice : 94.68%
Locate the liver tumor within the abdomen.		 Dice : 0.75%	 Dice : 0%	 Dice : 90.20%	 Dice : 94.21%
Find the kidney tumor and identify its boundaries.		 Dice : 1.95%	 Dice : 0%	 Dice : 0%	 Dice : 66.74%
Pneumothorax		 Dice : 49.03%	 Dice : 0%	 Dice : 14.17%	 Dice : 80.07%
Find the brain necrotic tumor core and mask its boundaries.		 Dice : 41.69%	 Dice : 0%	 Dice : 28.05%	 Dice : 84.05%