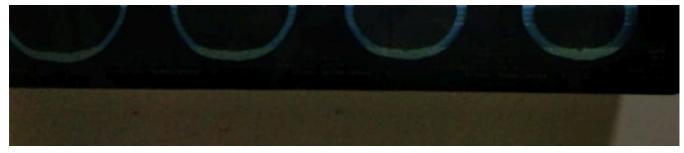


Scan Analysis Result

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Your Uploaded Medical Image

AI Analysis

1. Image Type & Region

- Modality: CT (Computed Tomography) Scan
- Region: Brain
- **Positioning:** Axial slices from the skull base to the vertex.
- Image Quality: While the image quality is fair, there are some artifacts present due to the image being a photograph of a film. This can make subtle findings difficult to assess.

2. Key Findings

- Ventricular System:
 - Mildly enlarged ventricles.
 - The enlargement seems symmetrical.

Brain Parenchyma:

- No focal areas of abnormally low or high density.
- Grey-white matter differentiation appears normal.
- No obvious signs of acute infarct or hemorrhage.

Sulci and Gyri:

- Sulcal spaces appear slightly prominent, suggesting possible mild atrophy.
- Bones:
 - The bones of the skull appear intact.
- Severity: Mild

3. Diagnostic Assessment

- **Primary Diagnosis:** Mild global cerebral atrophy with associated mild ventriculomegaly, likely agerelated or due to other non-acute etiologies. Confidence Level: High.
- Differential Diagnoses:

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- Normal Pressure Hydrocephalus (NPH): This is less likely due to the absence of clinical symptoms like gait disturbance, urinary incontinence, and dementia. However, further clinical correlation is needed.
- 2. **Early stages of Dementia:** Several types of dementia can present with atrophy. Clinical history and cognitive testing would be essential to differentiate.
- 3. **Chronic Ischemic Changes:** While no acute infarcts are visible, subtle chronic microvascular ischemic changes could contribute to the atrophy.

4. Patient-Friendly Explanation

The CT scan of your brain shows some changes that are often seen as we get older.

- **Slightly larger ventricles:** Think of your brain as having some fluid-filled spaces called ventricles. These spaces are a bit larger than expected. This is called ventriculomegaly.
- **Mild atrophy:** This means that your brain tissue has shrunk slightly. This is a normal part of aging, like how our skin gets a bit wrinkled over time.
- What it means: These findings don't necessarily mean something is seriously wrong. But it's important to consider them in light of your overall health and any symptoms you might be experiencing.

5. Standard Treatment

The standard treatment will depend on the underlying cause determined by a healthcare professional.

Medication Management:

- Cholinesterase inhibitors (e.g., donepezil, rivastigmine, galantamine): These medications can help improve cognitive function by increasing the levels of acetylcholine in the brain.
- Memantine: This medication is an NMDA receptor antagonist that can help improve cognitive function by regulating glutamate activity in the brain.

Lifestyle Modifications:

 Cognitive Rehabilitation Therapy: Training programs tailored to improve cognitive functions such as memory, attention, and problem-solving.

• Surgical Intervention:

• **Shunt Placement:** A surgical procedure to drain excess CSF from the brain into another part of the body, such as the abdomen, to relieve pressure.

Technological Advances

- **High-resolution imaging** enables earlier detection of subtle changes in brain structure.
- Al-powered image analysis is becoming increasingly helpful in quantifying atrophy and other changes over time.
- **Minimally invasive surgical techniques** for shunt placement are improving outcomes and reducing recovery times.

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References and Links

- 1. Alzheimer's Association: https://www.alz.org/
- 2. National Institute on Aging: https://www.nia.nih.gov/
- 3. National Institute of Neurological Disorders and Stroke: https://www.ninds.nih.gov/

This analysis result is not stored. If you wish to keep a copy, please use your browser's Print feature (Ctrl/Cmd + P) to save or print this page as a PDF.

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