

Left Atrial Enlargement in Cryptogenic Strokes Without Atrial Fibrillation: A Multicenter Retrospective Analysis

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Introduction

- The relationship between primary cryptogenic strokes (PCS) and left atrial enlargement (LAE) remains a mystery in the absence of pre-existing comorbidities.
- Previous studies found the severity of LAE to be an independent risk factor in PCS, recurrent ischemic strokes, and paroxysmal atrial fibrillation.

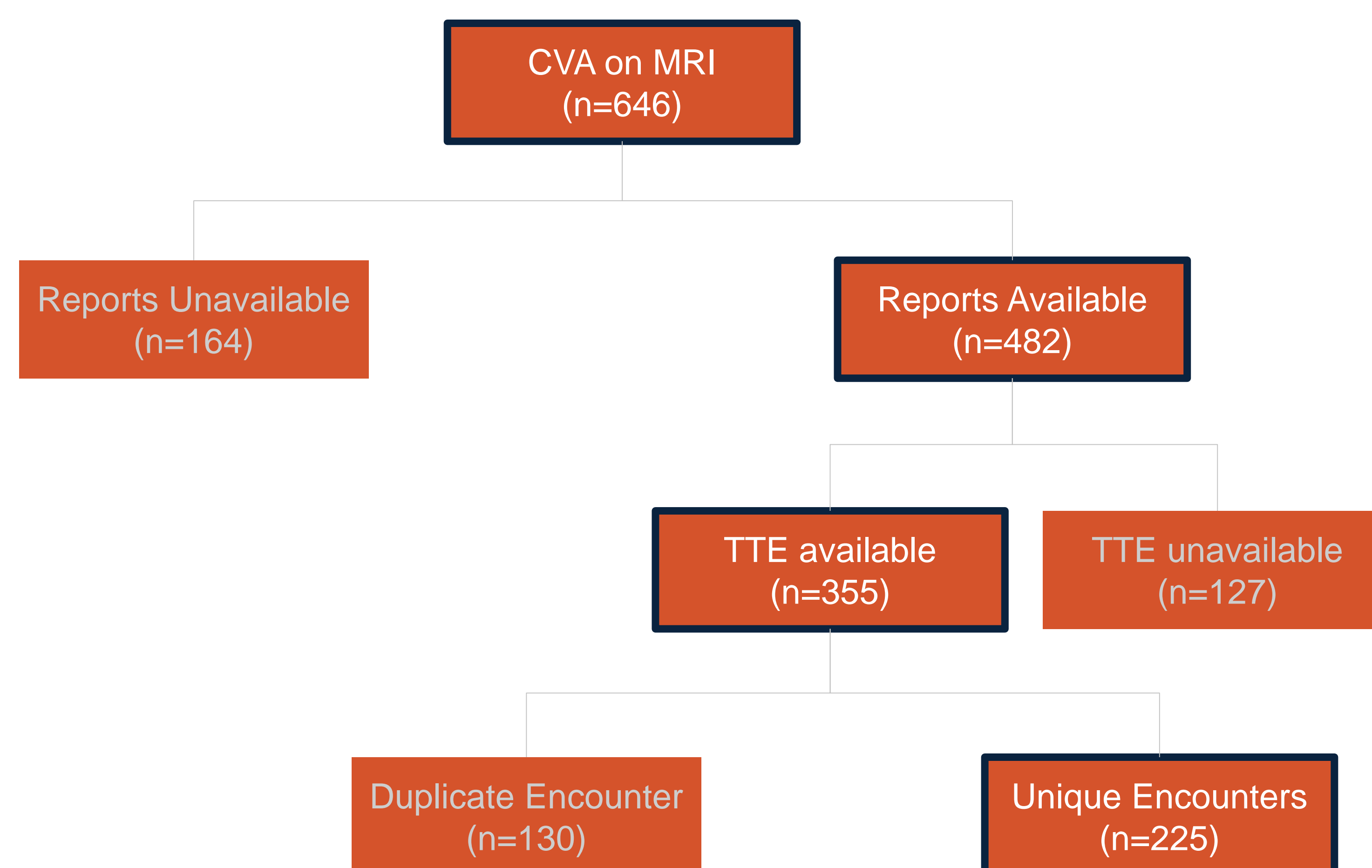
Objective

- To identify the prevalence of LAE in PCS, and further characterize potential risk factors for LAE.

Methods

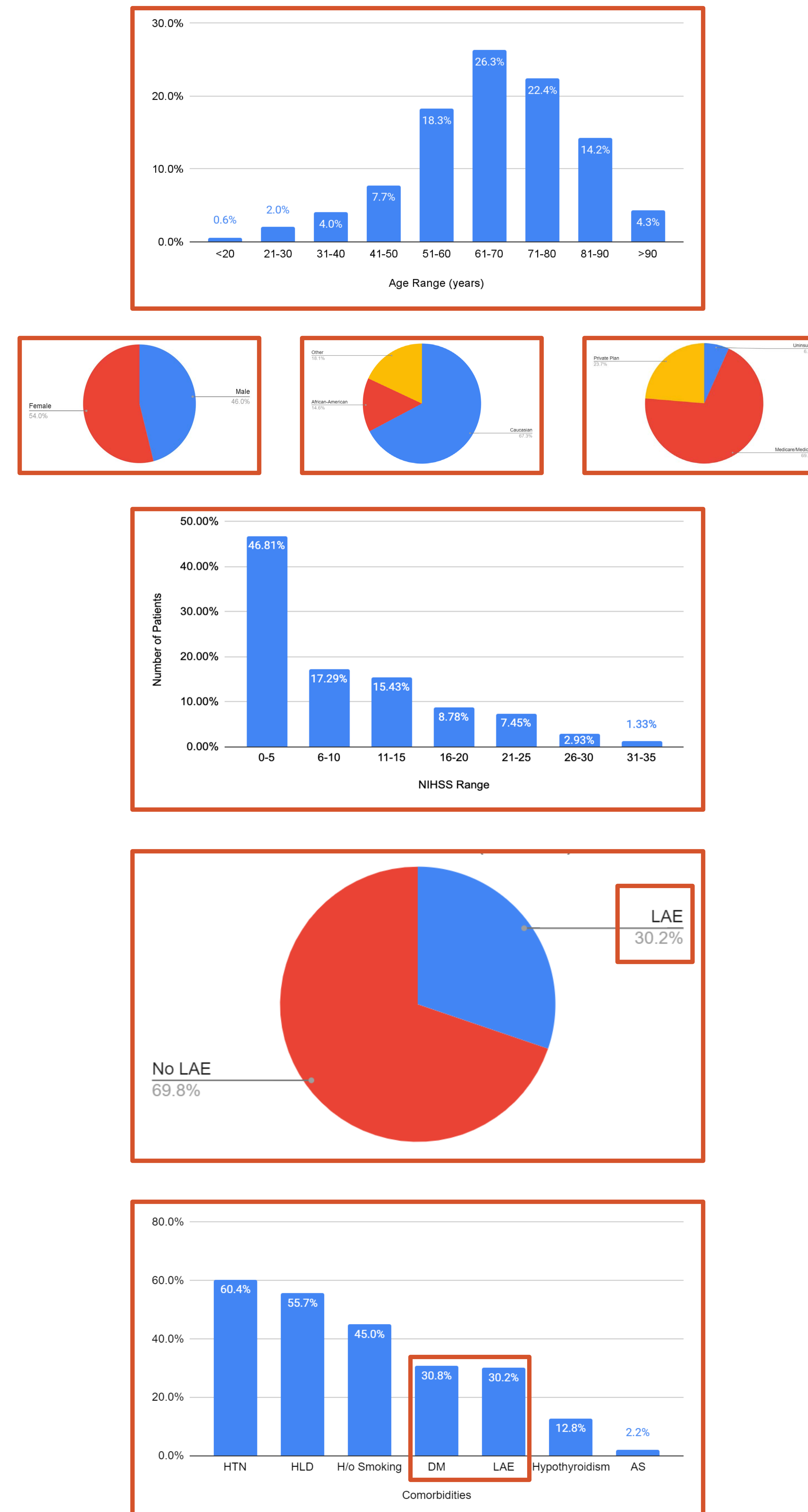
- Our multi-center retrospective study constructed a database of 646 patients identified with a diagnosis of cerebral infarction of unknown etiology from January 1st, 2017 through January 1st, 2021.
- Inclusion Criteria: First CVA, confirmed on MRI, LVEF >50%
- Exclusion Criteria: patients with known atrial fibrillation, atrial flutter, prior CVA, carotid artery stenosis, thromboembolic disease, previous anticoagulation, or an active cancer diagnosis.

Figure 1. Patient Identification



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Figure 2. Results



Discussion

- Complete reports were available for 482 patients (76%) to review for evidence of LAE.
- 54% were female, 67.3% Caucasian, 45% were previous or current tobacco users, 60.4% had hypertension, 30.8% had diabetes, and 12.8% had hypothyroidism.
- There is a high prevalence of LAE in patients with CVA (30.2%)**
- LAE may be an independent risk factor for CVA without atrial fibrillation.
- LAE on echo may itself be an indication for preventive anticoagulation.
- Of note:
 - LAE was as prevalent as DM in our population
 - Hypothyroidism was found in 12.8%

Conclusion

- Multiple risk factors were identified in our study population that reflect the importance of preventative counseling for patients:
 - Hypertension
 - Hyperlipidemia
 - Tobacco use
 - Diabetes Mellitus
 - Hypothyroidism
- Prospective studies to determine annual incidence of CVA in patients with LAE
- Studies comparing the benefits of preventive anticoagulation in patients with LAE vs the risk of major bleeding events
- Studies to determine the relationship between hypothyroidism and CVA

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