**CONCURRENT THORACIC AORTIC ANEURYSMS IN INTRACRANIAL ANEURYSM PATIENTS**

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Objective: To determine the prevalence of concurrent thoracic aortic aneurysms (TAA) in patients with intracranial aneurysms (ICA).

Background: Increasing evidence indicates that ICA and TAA occur concurrently at elevated rates.

Methods: We retrospectively reviewed patients presenting to our institution within the past 6 years for evaluation or treatment of ruptured or unruptured ICA. We evaluated radiographic records to identify patients with thoracic imaging performed for pre-operative work-up or unrelated reasons such as trauma. We recorded the number and characteristics of patients with concurrent TAA. TAA was defined by official radiology reports documenting a focal aortic dilation relative to the adjacent vessel rather than arbitrary size cut-offs.

Results: Of 1,224 patients who presented with an ICA, 359 had thoracic imaging

(146 with computed tomography, 212 with echocardiography, and 1 with magnetic resonance). Thoracic imaging was obtained as part of a pre-operative work-up in 64% of patients and for unrelated reasons in 36%. Of the 359 patients, 16 (4.5%) had concurrent TAA. Eight (2.2%) patients also had a dilated but non-aneurysmal aorta. Patients with ICA diameter >4.0 mm had an increased risk of concurrent TAA (p=0.047). Patients over 70 years old also had an increased risk of concurrent TAA (p=0.028).

Conclusions: Patients with ICA have a 4.5% rate of concurrent TAA. Patients with ICA >4.0 mm and age >70 have even higher risk of concurrent TAA. We suggest that ICA patients be screened for silent TAA, which could jeopardize their longevity even after successful treatment of ICA.