

## **SHOULD MIGRAINEURS BE SCREENED OF UNRUPTURED ANEURYSM?**

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**Objective:** Incidental aneurysm is asymptomatic but occasionally occurs subarachnoid hemorrhage. Unruptured aneurysms can be detected in primary headache. However, its incidence or characteristics are not well known. Purpose of present study was to screen the aneurysm by a magnetic resonance angiography (MRA) in migraineurs. We described the the features comparing to the non-aneurysmal subjects, and previous reports.

**Methods:** A consecutive 1,773 patients were screen for aneurysm by MRA. When the aneurysm was unclear by MRA, further evaluation with transfemoral cerebral angiography (TFCA), three dimensional computerized tomography (CT) angio were performed. For each aneurysmal evaluation, size in mm, number (single or multi), shape (saccular or fusiform), and locations were recorded.

All subjects were interviewed and completed self-reported questionnaire contains questions on the diversity of headache quality, severity, location, frequency, onset, duration, familial and environmental factors, associated symptoms and headache-related disabilities. They were grouped into unruptured aneurysms and migraineurs without aneurysm, and compared

**Results:** Unruptured incidental aneurysms were detected in 3.6% (63/1773) of patients with mean age of 56.0 years. The gender difference showed higher proportion in woman (87.3%). Mean size of aneurysm was 3.5 mm. Location was internal carotid artery (48.7%), middle cerebral artery (19.7%), posterior communicating artery (11.8%), Anterior communicating artery (11.8%) and basilar artery (3.9%) in order. Questionnaire showed difference in 'pain location' ( $p=.025$ ), 'double vision' ( $p=.026$ ), 'aggravation by hormone therapy' ( $p=.039$ ) and 'had a migraine in younger age' ( $p=.021$ ).

**Conclusions:** Unruptured aneurysms in migraineurs follow the age-group of aneurysm study rather than migraine, and are identified as an initial stage of unruptured aneurysm. Different clinical points warrant further study to be a predictive value to screen the incidental aneurysm in imgraineurs.