Case lesson 39-2025

Incidental finding of an unruptured DACA aneurysm over diagnosed considered for potential treatment

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A 61-year-old male with 30 years history of unspecified frontal headache, moderate intensity and constricting character. Intermittent scintillating scotomas were present since the beginning without ophthalmologist findings. The headaches have progressed in frequency and localization, due to hypertension, poorly controlled in the last two years.
Comorbidities: A treatment was initiated one year ago for arterial hypertension without salt restriction, 50-year history of nicotine abuse one pck/day, no symptomatology of coronary artery disease. Not obese.

His physical and neurological examination was normal.

In this case Brain MRA, CTA and DSA were indicated and performed.

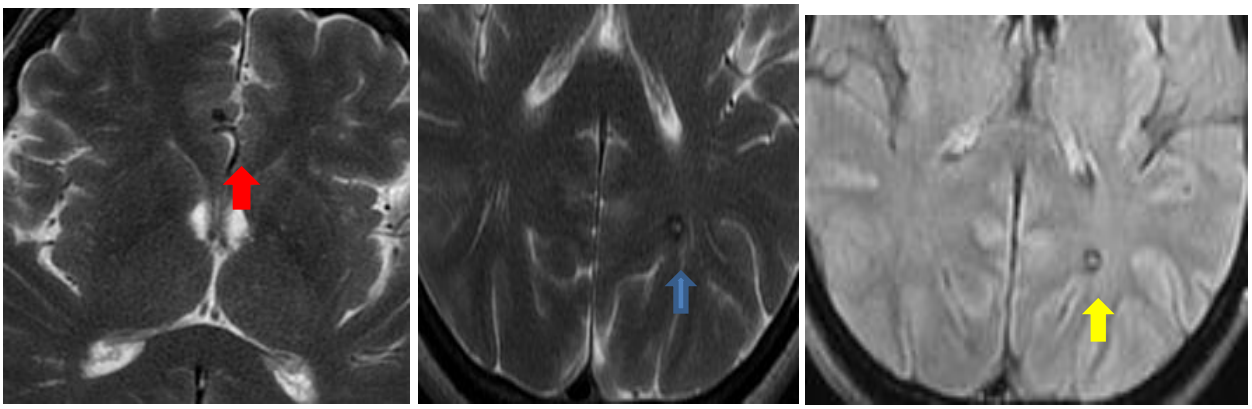

Fig 1a: *Brain MRI: Coronal and Axial T2 images showing a unruptured small 3.5 mm, regular shape DACA aneurysm (red arrow), and parietal cavernoma (blue arrow), Flair images, cavernoma (yellow arrow)*

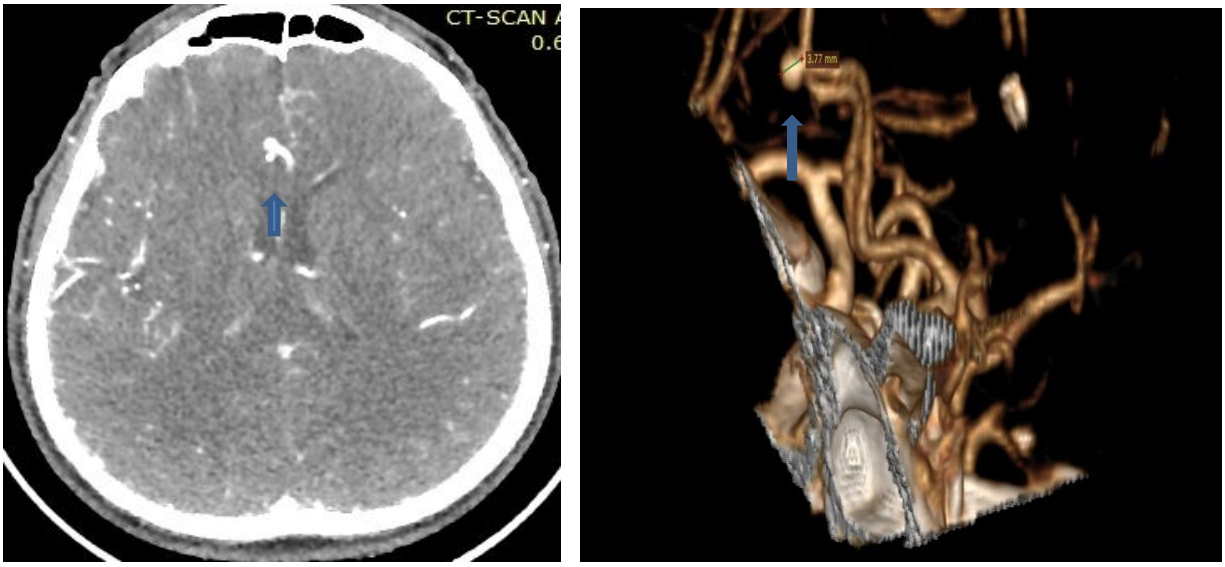

Fig 2. *CT angiography showing an unruptured small 3.5 mm regular shaped DACA aneurysm (blue arrow)*

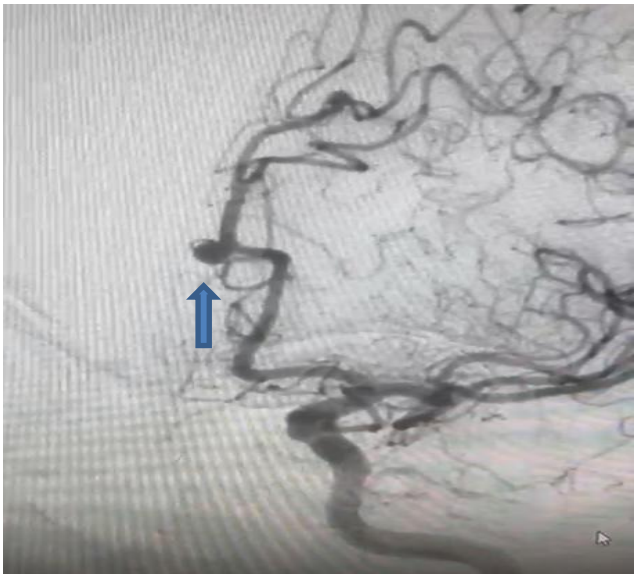

Fig 3: *DSA, unruptured regular shape small neck DACA aneurysm (blue arrow)*

Treatment with coiling or clipping was recommended, without using PHASES criteria.

- Population: 0 points
- Hypertension: +1
- Age 60–69: +1
- Size <4 mm: 0
- Earlier SAH: 0
- Site (ACA): +2

Discussion: Around 3% of the population have an intracranial aneurysm[3]. Data from the Lariboisière, Aubertin et al 2022 and Austrian, Dodier et al. 2025 demonstrate a very low annual rupture rate of approximately 0.1% -0.6%, during conservative surveillance, supporting a watchful-waiting strategy for unruptured, small, morphologically stable aneurysms.

Recently Rinkel et al., in Lancet November 2025, recommends control of modifiable vascular risk factors and radiological follow-up, MRA at 6–12 months to confirm stability, followed by MRA every 2–3 years, if no changes are observed. Annual surveillance was considered cost-effective in Netherlands, but in UK and USA, annual surveillance or in the first and fifth year after detection of an aneurysm was cost-efective only in patients younger than 60 years.[3] Preventive intervention should be reserved for cases demonstrating interval growth or morphological instability[1,3,4].

Smoking and hypertension are important modifiable risk factors [1,2,3].

In conclusion for small incidental unruptured aneurysms, without high-risk features, as our case, only radiological follow up and risk-factor modification are recommended. Overall, a clinical trajectory of over-investigation and potential overtreatment, contrary to current international recommendations advocating a personalized, conservative, and safety-conscious approach for small unruptured intracranial aneurysms.

Reference

1.Aubertin M, Jourdaine C, Thépenier C, Labeyrie M-A, Civelli V, Saint-Maurice J-P, Guédon A, Houdart ***E.*** Results of watchful waiting of unruptured intracranial aneurysms in a Western patient population: a single-center cohort. *Journal of NeuroInterventional Surgery. 2022;14:1102–1106. https://jnis.bmj.com/content/14/11/1102*

2. Dodier P, Lederer P, Ecker B, et al, Conservative management of 661 patients with unruptured intracranial aneurysms: an observational study over 4 decades. *Journal of Neurosurgery. Published online 2025, https://doi/abs/10.3171/2025.1.JNS241986*

3. Rinkel, G. J. E., Ruigrok, Y. M., Krings, T., Etminan, N., & Vergouwen, M. D. I. (2025). Advances in screening and management of unruptured intracranial aneurysms. The Lancet Neurology, 24(11), 958–968. https://doi.org/10.1016/S1474-4422(25)00265-0