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A CASE REPORT ON MOYAMOYA DISEASE IN PREGNANCY

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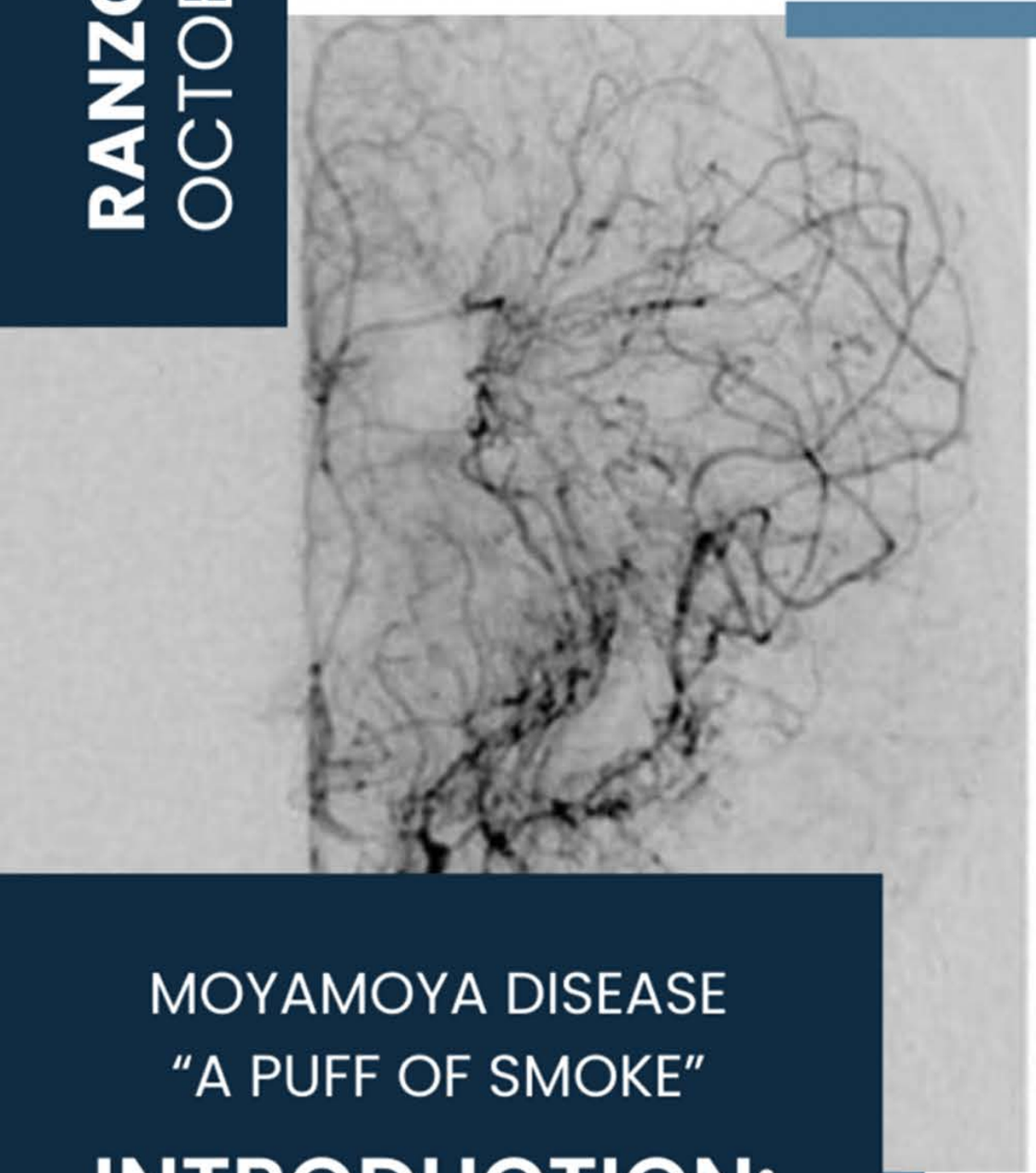
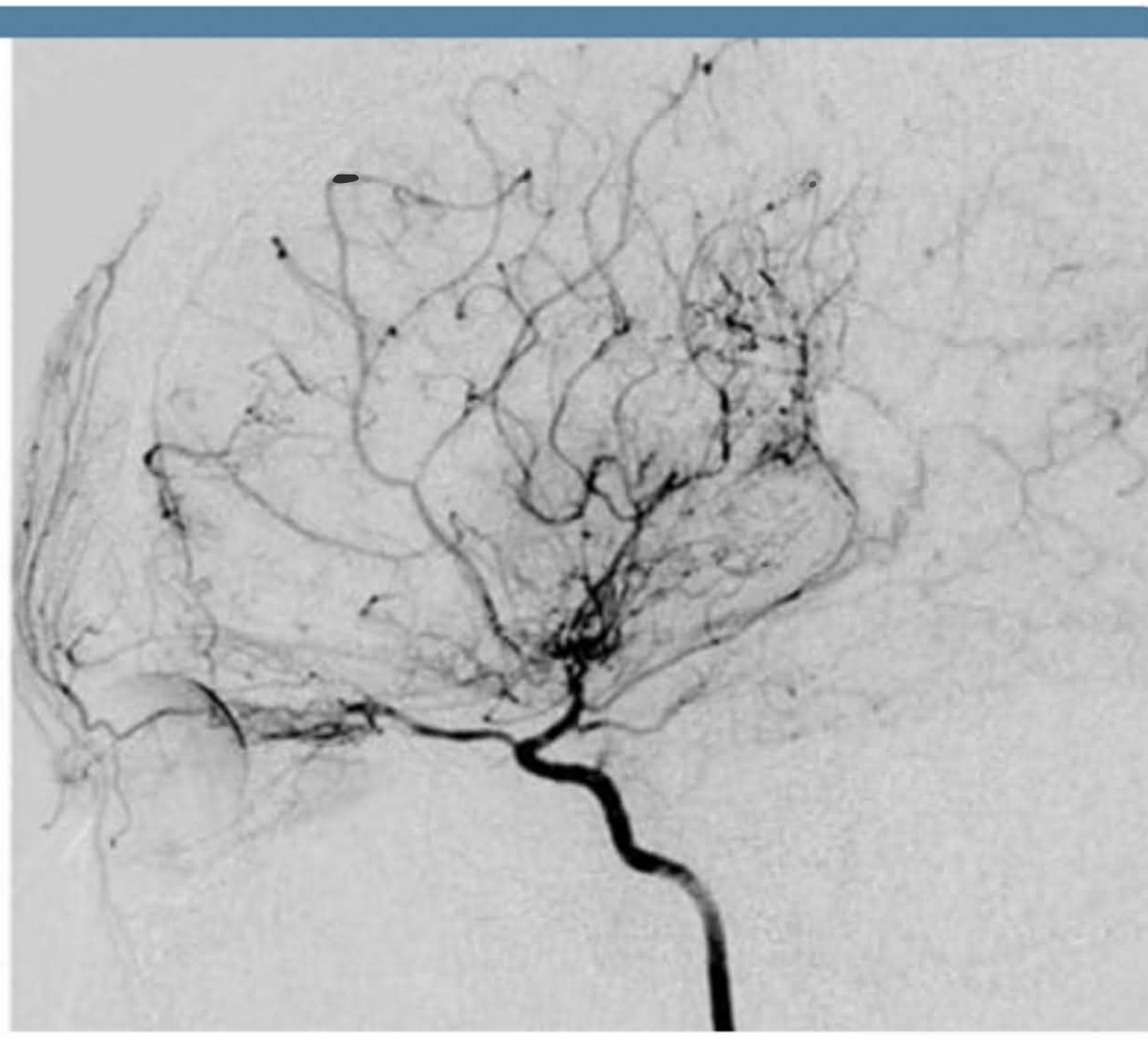
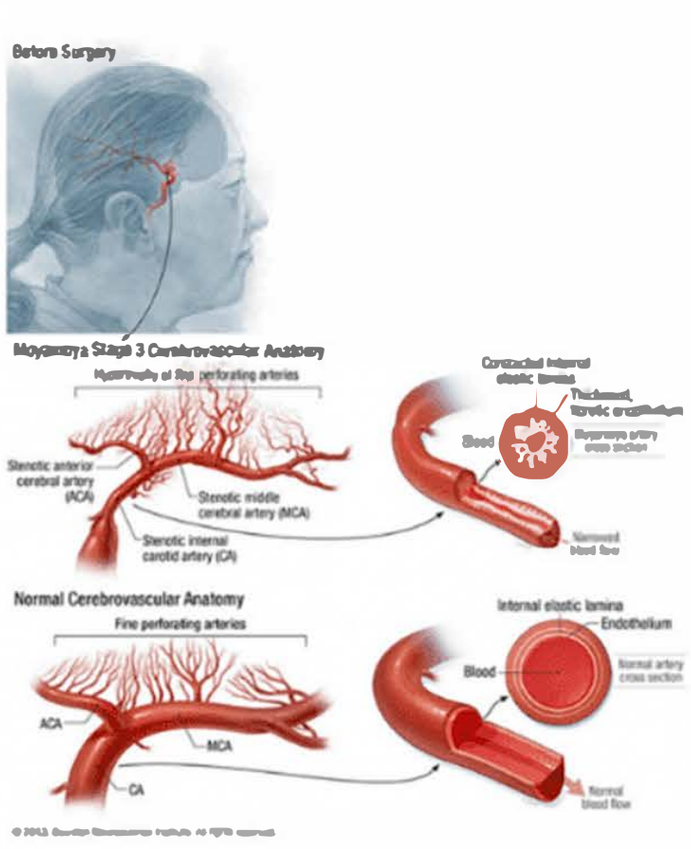




MOYAMOYA DISEASE
"A PUFF OF SMOKE"

INTRODUCTION:

- Moyamoya disease(MMD) is a progressive cerebrovascular occlusive disease which is prevalent in East Asian population.
- Its incidence in Australia is approximately 1 in a million.



Conclusion:

- A multidisciplinary approach is quintessential to improve the perinatal outcome.
- Blood pressure regulation is essential in improving the outcome as both hypertension and hypotension can lead to haemorrhagic or ischemic cerebrovascular events.

References:

- Kurodo S, Houkin K. Moyamoya disease: Current concepts and future perspectives. Lancet Neurol. 2008;7:1056–1066. doi: 10.1016/S1474-4422(08)70240-0. [PubMed] [CrossRef] [Google Scholar] [Ref list]
- Inayama Y, Kondoh E, Chigusa Y, Io S, Funaki T, Matsumura N, Miyamoto S, Mandai M. Moyamoya Disease in Pregnancy: A 20-Year Single-Center Experience and Literature Review. World Neurosurg. 2019 Feb;122:684-691.e2. doi: 10.1016/j.wneu.2018.10.071. Epub 2018 Oct 19. PMID: 30347298.

Case Summary:

- A 29 year old, primigravida, presented to the antenatal clinic for a routine appointment. She had a background of MMD.
- This case is of clinical interest as it is rare and challenging in its management.
- We conducted a literature review to understand the prognosis and management of MMD in pregnancy.

Discussion:

- MMD causes occlusion of internal carotid arteries resulting in development of collateral circulation giving a "puff of smoke" (Moyamoya in Japanese) appearance in the angiogram.
- Surgical revascularisation prior to the pregnancy is beneficial in reducing the risk of haemorrhage during pregnancy. Following revascularization, progression of the disease occurs in 2.6% of patients compared with 66% in patients without intervention.
- The risk of haemorrhagic and thrombotic stroke increase during pregnancy and puerperium owing to the physiological changes that occur such as hypoestrogenism and increased progesterone level, plasma volume and fibrinolytic activity.
- Caesarean section has been the preferred mode of delivery. However, recent data suggests that vaginal delivery with shortening of second stage under epidural anaesthesia is also safe