



Retrieval of Early Detached & Migrated Coil with a size of 5mmX17mm from Distal Cerebral Artery Using Sten Retriever

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Introduction

- The coil migration is a potentially serious complication of endovascular aneurysm treatment.
- So, we present a case of early removal of migrated coil with a size 5mmX17cm with distant 17cm from distal ICA & MCA during embolization for ruptured IC-PcoA aneurysm.
- we used a stent retriever technique that allowed a successful retrieval of migrated coil.



Methods

- A 55 year-old female patient was admitted to our hospital with a sudden onset of headache and a decreased level of consciousness. We has detected a large sized ruptured aneurysm of IC-PcoA in diameter 18mmx17mm in length on the left side.
- Endovascular coil embolization was performed under general anesthesia, an 8F vascular sheath was inserted in the right common femoral artery, and associated with system heparinization was done with angiogram CT monitoring.
- The catheter is inserted into left internal carotid and the aneurysm was detected and evaluated.
- Then, microguidewire and SL-10 microcatheter were inserted into aneurysm, and embolization procedures was initiated using 3D detachable coil of 18mmx30cm.

Imaging pre-op with small amount SAH in the prepontin cistern, lateral ventricle small amount IVH about 18mm large size aneurysm with Daughter sac in Lt distal ICA, with calcified lesion- post.Sup direction. About 9mm sized broad-neck aneurysm at right supraclinoid distal ICA to right proximal M1

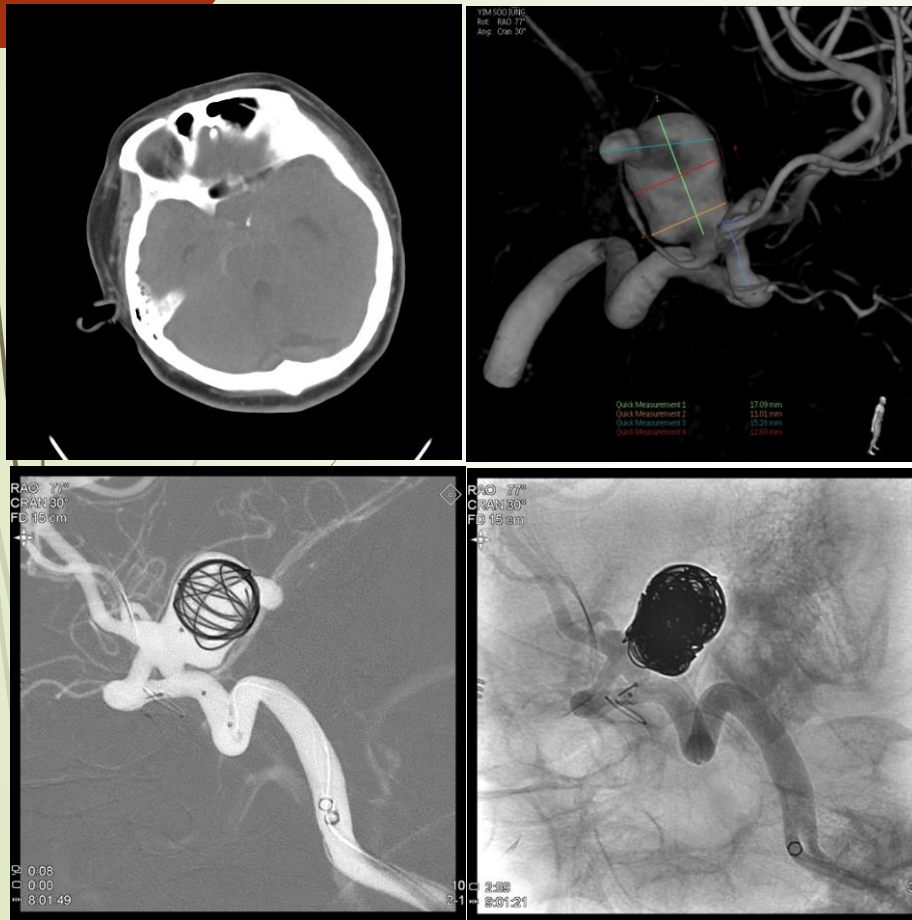
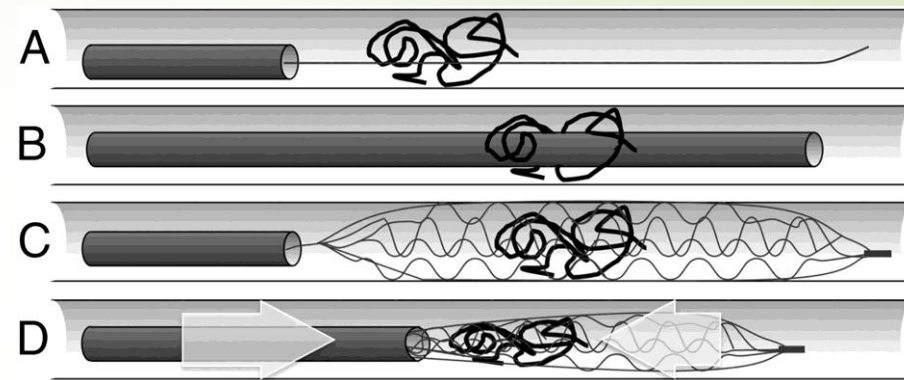


Illustration of the advanced retrieval technique with intentional trapping of the coil with the microwire(A) followed by microcatheter(B)

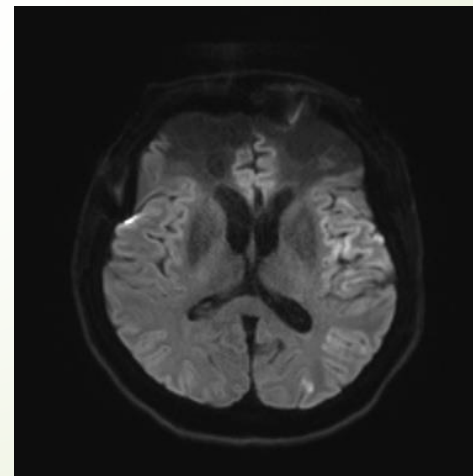
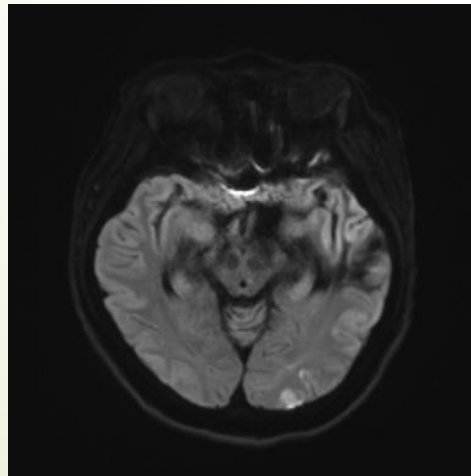
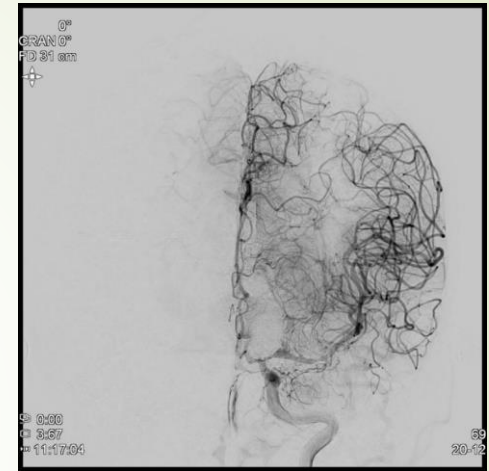
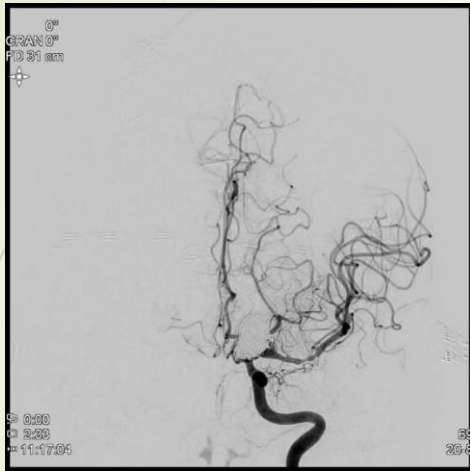


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Final angiogram and diffusion MRI





Result

- During the final coiling performance, it was found that the coil has been separated in the microcatheter and has been migrated into the ICA.
- Therefor, SL-10 microcatheter was retrieved from the aneurysm and the other prowler select plus microcatheter was placed connection to the herniated coil using microguiewires.
- After we trying more time, the herniated coil into distal ICA and MCA was caught by the distal end carefully retrieved from the ICA using solitaire stent of 4mmx20mm which was insert into prowler select plus microcatheter.
- The cerebral DSA control is perform showed that aneurysm was totally occluded.
- There was neither aneurysm recurrence or major neurologic deficit after a follow up of three months.



Conclusion

- The retrieval of migrated coil with a stent retriever is an effective treatment option for migrate coil when the correct technique is applied in large aneurysm.

Reference

Fujii, Norio, Takayuki Iwakami, and Jaehyun Son. "A case of retrieval of a migrated coil with a stent retriever." *Journal of Neuroendovascular Therapy* 12.4 (2018): 186-192.