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NEWLY FOUND FUSIFORM ANEURYSM IN A KNOWN CASE OF BASILAR TOP ANEURYSM-A CASE REPORT

Neurosurgery

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ABSTRACT

Double intracranial aneurysm although not a very rare entity can be managed in the same way as we manage single aneurysms if we plan it properly.However management becomes tricky if we find an incidental double aneurysm during the intervention for the primary intracranial aneurysm.Here we are going to present a case of 52 yr old lady diagnosed with basilar tip aneurysm planned for endovascular coiling & incidentally found to have fusiform aneurysm in the cavernous part of right ICA during the intervention.

KEYWORDS:

INTRODUCTION-

It is said,if we make a rare diagnosis we are rarely correct.Similarly dual pathology in the same patient is not quiet a common entity.However ,here we are going to report on a patient who presented to us with subarachnoid haemorrhage and was incidentally found to have double intracranial aneurysm on further investigations. Considering the age of the patient & other basic criterias we opted for endovascular coiling in this particular patient.Till date,there is no reported case on double intracranial aneurysm from eastern india to the best of our knowledge.

CASE REPORT:

A 52 years old female presented with sudden onset severe headache followed by one episode of loss of consciousness and vomiting. There was no history of hypertension. Patient was admitted and diagnosed to be hypertensive on admission. NCCT Head was done which was suggestive of Sub-arachnoid hemorrhage in pre-pontine cistern with intra-ventricular hemorrhage.

Subsequently an MRI Brain was done which was suggestive of intra-ventricular hemorrhage extending into all ventricles with mildly dilated supra-tentorial ventriculomegaly. An MR Angiogram was done on same day which showed a saccular dilatation at tip of basilar artery which was directed superiorly and to the right – f/s/o Basilar Tip Aneurysm.

fig.1 MR Angiogram showing a saccular dilatation at the tip of basilar artery

A 4 vessel DSA was done in our hospital on 23/11/16. It confirmed the findings of MRA showing a saccular aneurysm arising from the right side of top of basilar artery, measuring – 2.28 mm (neck) x 3.40 mm (height) with non-visualized right P1 segment. No other abnormality detected.

fig.2. 4 vessel DSA showing a saccular aneurysm arising from the right side of top of basilar artery with non visualisation of right P1 Segment

The patient underwent endovascular stent assisted coiling of Basilar apex aneurysm using 6 detachable platinum coils and 1 stent on 31st January. During the procedure, a fusiform aneurysm was seen in right ICA cavernous segment. The procedure was finished as planned with coiling of the basilar top aneurysm.

POST ENDOVASCULAR COILING COURSE-

Following endovascular intervention,apart from an episode of GTCS on 2nd post coiling day,the recovery was uneventful.Seizure was managed successfully with anticonvulsants.The patient was discharged in a clinically stable condition and kept on follow up.

Fig.3

Fig.4

fig 3&fig 4 shows pre coiling & post coiling DSA status.

In fig.4 we can appreciate that basilar top aneurysm is completely obliterated

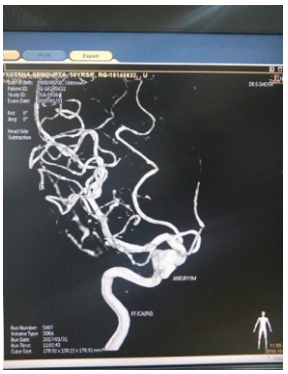

fig 5. Intraprocedure DSA revealed an aneurysm in the cavernous part of right ICA which was not visible in the previous angiography.

DISCUSSION:

DSA is gold standard for evaluation of Cerebral aneurysms. Its major benefit is it provides high resolution images with minimal bone or soft tissue artifacts. Its main drawback is its invasiveness. CT angiography has become the first line imaging modality for Sub-arachnoid hemorrhage. It has a sensitivity of > 90% for detection of aneurysms < 2mm in diameter[1,2]. MRA offers a safe alternative to DSA for evaluation of aneurysms. In the past, it was used only as a screening test. However, now it is useful for pre-treatment evaluation of both ruptured and un-ruptured aneurysms and post treatment follow up and surveillance of untreated lesions[3]. The incidence of cerebral aneurysms is estimated to be 5%.Patients who have been successfully treated for an aneurysm are at risk of developing new aneurysms. The rate being 0.4% to 2.2% per year. However, it seems to take some time to develop and some case reports have described rupture of a new aneurysm within 4-6 months of initial SAH.

Incidental aneurysms constitute between 17% and 37% of all unruptured aneurysms[4]. The incidence of multiple Intra cranial aneurysms vary from 7% to 30%[5]. Incidence is higher in women[6]. The menopausal state and high prevalence of collagen diseases amongst women may play a role. The most common sites for multiple aneurysms are Internal carotid artery and Middle cerebral artery[7]. Less than 1% of all intra cranial aneurysms are traumatic[8]. Mostly they occur in MCA territory after low velocity shrapnel injuries or stab wounds. Majority of these occur within 2 – 3 weeks of injury and are mostly false aneurysms. Mycotic aneurysms comprise 2% to 6%[9], mostly associated with infective endocarditis or immunologic compromise. They mostly occur in distal MCA territory[10] and streptococci and staphylococcus aureus are the most common organisms[11].

CONCLUSION

Even though dual pathology is considered to be an uncommon entity but with the advent of sophisticated technologies,now a days these are diagnosed on a much regular basis than before & more importantly can be managed with lesser risk of morbidities & mortalities to the patient.

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