

Silk ligation and Excision of Giant MC Aaneurysm as Alternative Method of Treatment

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Sir,

Jean-Louis Petit, in 1760 observed in one of his Patient an aneurysm which got cured spontaneously. Autopsy of the patient after 7 years of diagnosis revealed complete occlusion of carotid artery.¹ This suggested carotid ligation as one of the treatment of cerebral aneurysms. James Hunter² popularized this method in 1800. In 1933, Norman Dott introduced ligation of the neck of ananeurysm with surgical sutures.²

This approach was practiced by Campbell and Burklund in 1953 and Drake and Amacherin 1969.³ They attempted to combine the suture ligation with excision of aneurysms; however, this method failed to gain wide spread popularity and was abandoned for surgical clip placement.

We had a 35 year old male patient who presented with progressively increasing headache. He had right upper limb fits with secondary generalization for one year. He had mild (R) hemiparesis. CT scan brain with contrast showed rounded calcified lesion in the left temporal region. On exploration large thrombosed MCA aneurysm was found which was separated from surrounding structures. Parent vessel was identified. Clipping of aneurysm with multiple clips failed. Temporary clip was applied to parent vessel. Aneurysmal sac was opened and thrombosed material was excised. Aneurysmal neck was identified and ligated with silk suture. Excessive aneurysmal wall was partially excised. Temporary clip was released intermittently. Hemostasis was secured. No brain

swelling was observed.

Postoperative CT scan showed partial excision of aneurysmal wall; and there was no infarct or hemorrhage (Figure: 2). Patient developed (r) hemiparesis and dysphasia which progressively improved over a period of one month. At the end of 3 months followup weakness of right side of body and speech disturbance improve to normal.

With the advancement of endovascular techniques there is a tilt towards coiling. Silk ligation was introduced by Norman Dott which was popular in that time but with the advent of microscope and angiography it drifted to clipping and coiling. Yasargil has also mentioned silk ligation of aneurysmal neck apart from wrapping, trapping or proximal ligation as an alternative treatment of aneurysms.⁴ In recent times, due to improved microneurosurgical techniques blister aneurysms are sutured or excision of aneurysm and direct repair of aneurysmal neck being performed with microstures. Giant or blister aneurysms are being trapped and by passed with radial artery or saphenous venous grafts.⁵ In our patient due to big size and wide neck of aneurysm we tried to decompress the aneurysm; and ligated the aneurysmal neck with silk suture. We were afraid of longer intermittent temporary clip application but hemiparesis and dysphasi are covered with time.

In odd situations it may be helpful to do direct ligation of the aneurysmal neck, direct microsuture of the aneurysm after or bypass with radial artery or saphenous graft after trapping the aneurysm.⁵

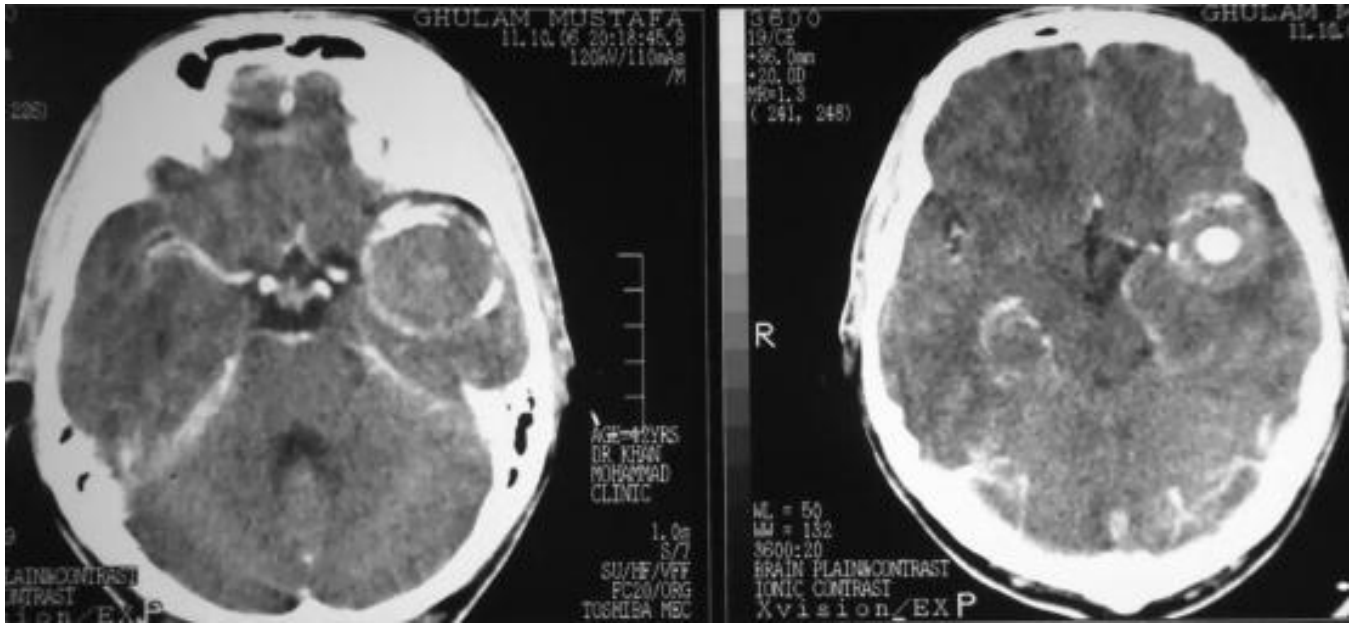


Fig. 1: Calcified (L) MC A giant Aneurysm.

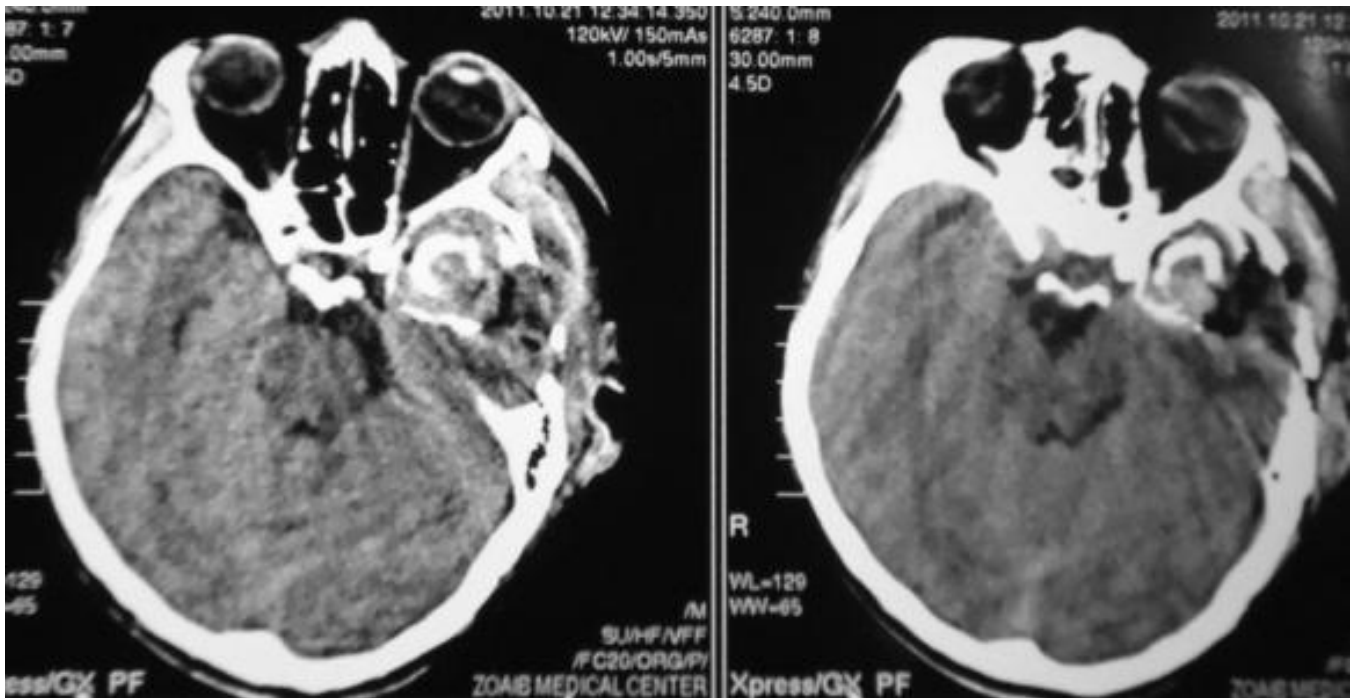


Fig. 2: Postoperative CT scan brain showing partial excision of aneurysm, Aneurysms are being treated with operative microneurosurgery application of clips or endovascular coiling.

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