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THE USE OF FLOW DIVERTER (SILK, PIPELINE) IN THE TREATMENT OF BRAIN ANEURYSM – 20 MONTHS OF EXPERIENCE

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In the period in between 10.2008 to 6.2010, we treated 21 patients having brain aneurysm with a flow diverter, in Tel Aviv medical center.

In 20 cases we use Silk and in one Pipeline. At that period we have mainly Silk on the shelf due to regulation problem.

Aneurysm include mainly non ruptured one with different sizes.

All have wide neck or/and were big or giant. Part was fusiform and most berry.

We had two clinical complications- in one an emboli to Lt MCA branch while navigating with the M.C far before F.D insertion.

The second have mass effect with Midbrain edema due to rapid thrombosis of the giant aneurysm that bulge into the brainstem.

The last recover in two months and resume nearly all his activity in half year but the first didn't recover well.

We have no technical complication.

In 4 cases we had to insert Leo stent and than inside it Silk.

In two of these cases the stent was occluded in the follow up but none have clinical effect.

In most of cases we have clinical and radiological follow up. In nearly all we have MRA and/or CTA. In 10 cases we perform angio.

At period of 3 to 20 months, from 21 patients we have radiological follow up in 19. In that group of 19 patients, in 16 the aneurysm is closed.

In 3 cases the aneurysm is still open. In one we insert a second F.D due to mal position of the first.

In the second patient after 14 months there is reduction in aneurysm size- we decided to wait more 12 months to occlusion.

The third has giant fusiform aneurysm were Leo were inserted with silk. A second session was done and another Silk was inserted.

We intend to present our result and some case examples.

To discuss the difference between the two type of flow diverter.

Flow diverters are new promising tool to treat complex aneurysm, to get low rate of re canalization and high occlusion rate.

We use them more as first tool and those aneurysm were we think from our experiences that coiling or coiling with stenting have high rate of re canalization.

In some cases to reduce the risk of late bleeding, we use few coils- insert them to the aneurysm lumen before deploying the F.D.

The results are encouraging but still more experience and knowledge needed for a better usage.