Re intervention following EVAR
Our Experience in District General Hospital

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Background
Aneurysmal sac expansion and rupture associated with endoleaks following EVAR attributes to morbidity and mortality. 3-43% patients undergoing EVAR, experience most commonly type II endoleak which can either be managed conservatively by serial CT angiograms if sac size is stable/decreasing or actively by embolization if sac size is increasing.

Methods
A retrospective review of procedural angiograms, computed tomography angiography, and medical records of 134 patients who underwent elective EVAR between 2009 and 2015. Patients were followed by serial CT angiogram and Abdominal X Rays after 6 weeks, 6 Months and then yearly. None of the patients had endoleak on procedural angiogram.

Results
9/134 patients had type II endoleak on first follow up (6 weeks) scan. 4 out of 9 patients continued to have type II endoleak on subsequent scans and managed by serial CT angiograms, since sac size was stable. Remaining 5/9 patients showed no significant leak on subsequent scans. Only one patient had embolization post EVAR in first year as sac size was increasing.

Two patients out of 134 patients on 6 months follow up CT angiogram demonstrated type II endoleak and treated with embolization.

8/134 patients on yearly follow up scans showed type II endoleak but no increase in sac size. In total three patients had embolization within first year. No further leak after intervention but sac size continued to increase in 2/3 patients.

One patient developed late type I endoleak after 48 months which settled after sinus XL stent placement across proximal graft but continued to have increase in sac size. There was no aneurysmal related rupture or conversion to open repair.

Conclusion
In our series the number of patients requiring re intervention is low in first few years of follow up. However 3/4 patients who had intervention the sac size continues to increase which will require further intervention, suggesting that secondary intervention following Type II endoleak remain high.