Conclusion and summary

Endoscopic sinus surgery is seen as the standard treatment in clinically challenging chronic rhinosinusitis (CRS) and in sinonasal polyposis.

Functional endoscopic sinus surgery, (FESS), is a minimally invasive surgical procedure that opens up the paranasal sinus ostia using an endoscope.

Adhesions remain one of the most common causes of recurrent nasal symptoms after endoscopic sinus surgery which necessitate revision sinus surgery.

Mitomycin C (MMC) is a topical agent that has demonstrated clinical efficacy in the reduction of clinical scar formation .

This study was performed to evaluate the efficacy of Mitomycin C in reducing adhesions formation after endoscopic sinus surgery.

This study was done on 25 patients (9 female / 16 male) ranging in age from 15 to 42 years (mean 30.16 years) suffering from chronic rhinosinusitis with or without sinonasal polyposis .

Diagnostic nasal endoscopy (0º telescope 4 mm diameter) will be first performed under local anaesthesia and then coronal and axial computed tomography scans will be performed in each instance.

after the completion of the surgery, a neurosurgical cottonoid saturated with 1 ml of MMC in a concentration of 0.4 mg/ml was placed in

either the right or left middle meatus randomly and a pledget soaked in saline was placed in the contralateral side.

After a period of 5 minutes, the cottonoid was removed and the nasal cavity was irrigated with sterile normal saline.

Both sides of the nasal cavity were examined for synechiae and the presence of mucosal hypertrophy and polypoid changes in the post operative follow up .

The results of our study show the occurance of adhesions in 2 cases in group A (MMC treated side) and in 7 cases in group B (saline side).

Although the these results doesn't reach the significant P value (0.66) but the difference is sure due to the effect of MMC.

The difference of occurance of polypoidal mucosa or granulation tissue between group A and B was not statistcally significant.

Therefore, topical application of Mitomycin C is effective in reducing adhesion and synechiae after endoscopic sinus surgery. It is also safe and no local or systemic complications were observed .