Functional endoscopic sinus surgery (FESS) is now gold standard for the management of refractive sino-nasal diseases. The standard technique of performing uncinectomy and MMA, is effective but is associated with risk like lamina papyracea lesions, orbital hematoma, loss of vision, intra-cranial dural sinuses and obstruction of maxillary sinus ostium. Wormald and McDonogh (1998) proposed a new method of performing an uncinectomy named “swing door technique”, that allows the uncinate to be removed flush with the lateral nasal wall and easy identification of natural ostium of the maxillary sinus and to avoid complications. A prospective controlled study was undertaken to find out efficacy of swing door technique of uncinectomy and MMA and the results are reported.

METHODS AND MATERIALS

The present study was conducted in the Department of Otolaryngology, PGIMS, Rohtak, India. 60 cases of either sex in the age group of 18-50 years suffering from sinonasal symptoms were included and were randomly divided in two groups of 30 each using a periodic random number. The patients were divided into two groups A and B based on the technique used for performing the uncinectomy. The patients were divided into two groups A and B. Group A underwent uncinectomy using the standard technique and group B underwent uncinectomy using “swing door technique”. The patients were followed-up for 6 weeks and the results were compared.

Swing Door Technique: A sickle knife was used to incise horizontally across the uncinate in the middle of the middle turbinate. A hook picking/lifting force was placed beyond the incision to prevent the uncinate from falling posteriorly. The posterior wall of the uncinate was grasped with a hook. The uncinate was swung anteriorly while the sickle knife was still in contact. The uncinate was then removed in toto and middle meatus antrostomy was performed. The procedure was repeated for all the patients included in the study.

RESULTS

The age of the patients and symptoms are shown in charts I,II and III. Although standard method of performing uncinectomy and MMA is effective, but may have associated risks. If the incision into the uncinate with sickle knife is attempted flush with the lateral nasal wall, there is increased risk of penetrating the orbit more so if an anatomical variation of uncinate is present. In addition, a hypoplastic maxillary sinus or the absence of anterior ethmoid air cells may also bring in the sickle knife in close proximity to the lamina papyracea with an increased risk of orbital penetration. Wormald & McDonogh proposed a new method for performing an uncinectomy (swing door technique) that allows the uncinate to be removed flush with the lateral nasal wall and easy identification of natural ostium of the maxillary sinus.

In a prospective controlled study sixty cases of either sex in the age group of 18-50 years suffering from sinonasal symptoms were included and were randomly divided in two groups of 30 each using a periodic random number. The patients were divided into two groups A and B. Group A underwent uncinectomy using the standard technique and group B underwent uncinectomy using “swing door technique”. The patients were followed-up for 6 weeks and the results were compared. Group A, complete eradication of symptoms i.e. VAS score was 78.50 ± 14.34 showing better improvement of symptoms as compared to group B. In group B, it was 80.38±14.34 showing better improvement of symptoms in group B. When compared with each other statistically by using Student’s t-test, the difference was found to be not significant (p>0.05).

At the end of 2nd week in group A, the mean VAS score was 78.50 ± 14.34 and in group B, it was 80.38±14.34 showing better improvement of symptoms in group B. When compared with each other statistically by using Student’s t-test, the difference was found to be not significant (p>0.05).

In group A, complete eradication of symptoms i.e. VAS 100 was achieved by 18 out of 30 patients with nasal obstruction. One out of 30 patients with postnasal drip, 2 out of 27 patients with rhinorrhea and one out of 24 patients with nasal discharge. Whereas in group B, 100% score was achieved by 24 out of 30 patients with nasal obstruction, 2 out of 30 patients with postnasal drip, 1 out of 30 patients with nasal discharge.

There was no major complication observed in both the groups. In group A, 6 (20.0%) minor complications, 2 (6.66%) major complications and 2 (6.66%) minor complications and 2 (6.66%) major complications were observed. At the end of 6th week it was 1 (3.33%) and 0 (0%) in both the groups respectively. When compared statistically at 2nd week by using χ² test, the difference was found to be statistically significant (p<0.05, χ²=4.81) showing less incidence of complications in group B.

CONCLUSIONS

The present study was conducted in the Department of Otolaryngology, PGIMS, Rohtak, India. 60 cases of either sex in the age group of 18-50 years suffering from sinonasal symptoms were included and were randomly divided in two groups of 30 each using a periodic random number. The patients were divided into two groups A and B. Group A underwent uncinectomy using the standard technique and group B underwent uncinectomy using “swing door technique”. The patients were followed-up for 6 weeks and the results were compared. Group A, complete eradication of symptoms i.e. VAS score was 78.50 ± 14.34 showing better improvement of symptoms as compared to group B. In group B, it was 80.38±14.34 showing better improvement of symptoms in group B. When compared with each other statistically by using Student’s t-test, the difference was found to be not significant (p>0.05).

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CONCLUSIONS

In the present study it was observed that swing door technique gives good postoperative results with lesser complications as compared to the standard technique. FESS is in a developing phase in our country except in apex institutes. Young surgeons are not well trained in endoscopic surgery. So swing door technique is better for them to get good results with minimum complications.

REFERENCES