ORIGINAL ARTICLE

Silastic Splints in Nasal Surgery

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ABSTRACT

Objective: To determine the outcome of nasal septal surgery with & without Silastic splints in term of adhesion formation, pain, discomfort and crusting experienced by the patient.

Study: Comparative, interventional study.

Place & Duration: Department of ENT, PUMHS Hospital Nawabshah, from October 2009 to April 2010.

Material and Methods Total 50 patients under going septal surgery. We divided patients in two groups, Group A & B. Group A intra nasal splints with finger packing and group B without intra nasal splints with finger packing. Follow-up was carried out at 48 hours and 01 week for assessment of crust and pain, while adhesion formation was monitored for 01 and 02 months after surgery.

Results: Age of patient in group A and B was 20 to 45 years. There was a marked difference in findings i.e. crusts and adhesion with B Group (Without intra nasal splint) and Group A with intra nasal splint have only pain and discomfort.

Conclusion : Insertion of silastic splints after septal surgery should be accepted as a routine procedure.

Key Words: Septal Surgery, Intranasal Splints, Crusting, Adhesions.

INTRODUCTION

The use of intranasal splints in nasal surgery operations has been widely practiced by ENT surgeon. Salinger and Cohen were the first to use intranasal splints for surgery[1]. Common cause of nasal obstruction include septal deviation, hypertrophy of inferior turbinate or both. When deviations are significantly obstructing the nose, some sort of remedy is required, options included are septoplasty and submucous resection. Septal surgeries cause postoperative complications, like; adhesion formation, pain, discomfort, septal perforation, septal abscess, septal haematoma and crusting, recently a pneumocephalus was observed postoperatively having no any explaination[2-4].

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Surgeons are using various techniques to avoid such complications[5]. Use of silastic splints after septal surgery to reduce adhesion/ crusting and pain[6]. Various types of materials have been used in past, strips of X-Ray films, and the polyethylene tops of coffee cans, nowadays several types of pre-formed silicon and soft splints are available[7,8].

In this study results of septal surgery with and without intranasal splints were compared in term of adhesion formation and pain / discomfort and crusting experienced by the patients.

MATERIAL & METHODS:

We conducted a prospective, comparative, interventional study to evaluate the role of intranasal septal splints and to compare the results of this type of treatment with those of conventional nasal packing. Our study population consists of 50 male patients as no female was enrolled during study period. Patients were aged between 20 to 45 years, who had undergone submucous resection (SMR) for the treatment of nasal septum in PUMHS Hospital Nawabshah. Nasal obstruction was present in all 50 cases. The exclusion criteria for this study include previous surgery and skin disease of nose before surgery.

All 50 patients were placed in two groups A and B, consisting of 25 patients in each. A with intranasal splints and B group without nasal splint. Written informed consent was taken and the surgery was performed under general anaesthesia. Splint was inserted into each nasal cavity and fixed with a Mersilk suture that crossed both septal flaps and splints anteriorly and posteriorly and thorough matters suture was used to cross the remaining septal cartilage if possible. The nasal packs were removed after 48 hours & splints were removed after 1 week. Pain/ discomfort were recorded.

All patients were followed for 2 months. At 2 months, all patients were asked for their complaints, they were examined endoscopically to look for any deformity, intra nasal adhesion, nasal discharge, nasal obstruction, nasal crusting, and septal perforation.

RESULTS:

The mean age of all 50 patients was 28 year. All were male. Group A with intra nasal splint and group B was without intra nasal splints.

Discomfort and discomfort was seen in majority of cases in group A, while crusting was more common in group B. All these complains were seen after 48 hours of removing the pack and within 1 week time period, while adhesion formation was observed during 1st & 2nd months after surgery. All of the patients having adhesion formation were belongs to group B which was without intra nasal splint (Table-1).

DISCUSSION:

In this comparative study 50 patients under went sub mucous resection surgery (SMR). In our study all of the patients were male and surprisingly no female was admitted during study period. The mean age was 28 years, similar were the findings of other studies indicating that males are affected more than female[7,9], the male preponderance in these studies might be explained by the fact that men are involved in physical activities than women, and thus more prone to injury.

The complication of septal surgery have been a major issue and different option are available to tackle but the role of intra nasal splints and other packing material still needs to be proved[10,11]. There are various types of intra nasal splints available in market. Variety of material used to decrease pain and discomfort associated with splints[12]. Different shapes are made to the natural shape of nostrils and avoid unnecessary contact of sharp edges of splints to the mucosa[9]. The type of splint used is a major factor while comparing the pain discomfort as the shape size and sharp edges do affect the pain discomfort[13]. What ever is the type of material of intra nasal splints, its size must be according to nasal cavities and edge should always be soomthened[8,10]. There are no generally accepted standards regarding the materials which should be used for packing[14], how long the packing should be left in place or the indication for nasal packing. Other complication associated with nasal packing or different materials used for support should also be kept in mind while deciding the type of packing in differed situation[15]. Types of packing selection depend over surgeon preference.

In this study intra nasal splint found to be effective tool to prevent nasal adhesion. We found adhesion formation in group treated without intra nasal splints confirming the findings of other workers[16,17]. The results of our study showed that adhesion formation and crusting after septal surgery was more in the patients which were without intra nasal splints and in patients having intra nasal splints no such complications were seen and only pain/discomfort was noticed, these findings are in consistent with the other international data[18,19].

Table-1. Complications Observed in Both Groups

Group	No of Patients	Complications			
		Pain	Discomfort	Adhesion	Crust Formation
		No of Cases (%)	No of Cases (%)	No of Cases (%)	No of Cases (%)
A	25	15 (60)	23 (92)	00 (00)	05 (20)
B	25	10 (40)	02 (08)	25 (100)	20 (80)

CONCLUSION:

Insertion of silastic splints after septal surgery having a significant benefit in reducing post nasal adhesion formation.

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