



**ORIGINAL RESEARCH PAPER**

**Plastic Surgery**

**A STUDY ON RESULTS OF AUGMENTATION RHINOPLASTY WITH SILICONE IMPLANT IN A TERTIARY CARE HOSPITAL**

**KEY WORDS:** Augmentation rhinoplasty, Asian rhinoplasty, Tip rhinoplasty, Silicone implants.

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**ABSTRACT**

**Background:** Augmentation rhinoplasty is often performed among Asian patients to improve the height of the nasal dorsum. The use of autogenous tissues has its own limitations and alloplastic materials are a good alternative with time tested results in Asia. There are many types of alloplastic materials but Silicone is our chosen material because of its ease of availability, lesser chances of getting distorted and softer consistency. **Study design:** Prospective, interventional, institution based, conducted at Apollo Multispeciality Hospitals, Kolkata, India. **Method:** Our study includes 10 patients operated over a period of 1 year; all patients underwent augmentation rhinoplasty with Silicone implant and were followed up for 2 years without any complications. **Conclusion:** Silicone implants have shown to give good results because of its nasal cartilage like consistency and hence can safely be used for nasal dorsal augmentation if performed with proper precautions.

**INTRODUCTION**

Augmentation rhinoplasty refers to the surgical procedures done to increase low nasal height with either autologous tissues or implants which may occur due to congenital defects, trauma, infection or excessive reduction rhinoplasty.[1] Recent trends are to perform augmentation rhinoplasty using autologous tissues, where dermofat, rib cartilage, and diced cartilage are used.[2,3] Dermofat and diced cartilage, have shown inconsistent results due to absorption and the results to elevate the dorsum are unpredictable. On the other hand, cartilage has a hard texture and sharp margins; it is easily noticeable in thin skinned patients. Cartilage is also more prone to warping and distortion. It is generally acknowledged that autologous tissues are safer, [4] yet, many a times, due to patient dissatisfaction, there have been incidences of a revision surgery after an augmentation rhinoplasty in which autologous grafts were used.

Silicone has the advantage of not getting distorted even after a prolonged period of insertion in the body.[5]

The present study was carried out to re-establish the advantages of Silicone based augmentation rhinoplasty.

**METHODOLOGY:**

This prospective, interventional, institution based study was conducted at Apollo Multispeciality Hospitals, Kolkata, and included 10 patients in the age group of 25-60 years operated over a period of 1 year – during January 2019 -December 2019; all patients underwent silicone implant augmentation rhinoplasty and were followed up for 2 years without any complications.

We prospectively followed up 10 patients during January 2020 to December 2021. All patients underwent L-shaped silicone implant augmentation rhinoplasty operated by a single surgeon. The major operative steps were : (1) Intra-operative infiltration of injection 2% Lidocaine + Adrenaline; (2) pocket dissection through open rhinoplasty approach (3) cephalic trim of lower lateral cartilages (4) tip plasty with transdomal and interdomal sutures. (5) placing the implant and skin closure with 5-0 Vicryl rapide. All the patients were recorded for early and delayed surgical complications and satisfaction.

**RESULTS**

All patients were discharged the same day. No complications were noted in any of the patients during the two year follow up period and all patients were satisfied with the final appearance.

**TABLE 1 – General Details**

SERIAL NO	AGE IN YEARS	SEX	COMPLICATION	PATIENT SATISFACTION
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1	26	F	NIL	GOOD
2	34	F		VERY GOOD
3	28	M		VERY GOOD
4	29	F		GOOD
5	41	F		VERY GOOD
6	32	F		GOOD
7	27	M		FAIR
8	44	F		GOOD
9	35	F		VERY GOOD
10	37	F		FAIR



**Figure 1a** – lateral profile pre operatively, **1b** – intra operative placement of implant, **1c** – lateral profile immediate post operative, **1d** – worm’s eye view after closure.



**Figure 2a** – lateral profile pre operatively, **2b** - intra operative placement of implant, **2c** - lateral profile 1 week post operative.

**CONCLUSION**

Silicone may not be the ideal alloplastic material for augmentation rhinoplasty as there is no such thing as the ideal material for augmentation rhinoplasty till date, not with standing it is still one of the most practical and reliable materials for augmentation rhinoplasty.

There are two most important prerequisites for the safe use of silicone implants-

- (1) complete sanitization of the implant and the operation field - irrigation of the surgical pocket with antiseptic solution before insertion of the implant is recommended and,
- (2) proper size of the implant - a well-fitted implant must be placed snugly in the surgical pocket without tension. Tension may create warping or extrusion of the implant.

However, the use of silicone implants should be restricted only for the dorsum and it is recommended to use only autologous tissue for the nasal tip and columella.

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