Suspension Suture Technique in Nasal Valve Collapse
Azrina Zaman, MRCS DOHNS; Chee-Yean Eng, FRCS (ORL-HNS); Ullas Raghavan FRCS (ORL-HNS)
Doncaster Royal Infirmary, United Kingdom

ABSTRACT
Suspension suture technique in Nasal Valve Collapse Objective: To assess efficacy of alar suspension suture in the management of nasal valve collapse
Aim: To assess the efficacy of alar suspension sutures in the management of nasal valve collapse.

INTRODUCTION
The concept of the nasal valve was first described by Mink in 1902. In 1970 Bridger then defined it as the fluid-flow segment of the nasal airway.
There are different surgical options for the management of nasal valve collapse and these include graft insertion, flap or suspension suture insertion. The aim of the study is to evaluate the efficacy of using our technique of inserting alar suspension sutures in the management of nasal valve collapse.

SURGICAL TECHNIQUE
The aim of our study is to evaluate the efficacy of using our technique of inserting alar suspension sutures in the management of nasal valve collapse.

METHOD
A retrospective case note review was conducted on patients who had had suspension sutures inserted between September 2009 and December 2010 at Doncaster Royal Infirmary.

RESULTS
Thirty patients who had had suspension sutures inserted were identified. Nine patients were excluded from the study as 6 had concurrent procedures carried out on the septum, turbinates and lateral nasal duct and 3 patients’ cases were unavailable. 24 patients were included in our study. The average VAS score improvement was by 5 points (p < 0.001) and PIFR increased by 63.7% (p = 0.000).

CONCLUSIONS
This study has shown the efficacy of this surgical technique in improving symptoms in patients with nasal valve collapse by way of improvement in both the objective measurement of Peak Inspiratory Flow Rate (PIFR) and the subjective measurement of Visual analogue scale (VAS). This is supported by the findings of Lie et al. and Paniello et al. Alar suspension sutures are well tolerated and has minimal side effects compared to other surgical techniques. For example, when using grafts this can be complicated by migration and change in external appearance of nose.

Graft insertion is technically more demanding and requires more theatre time, compared to insertion of alar suspension sutures hence this makes suspension sutures more cost-effective. The improvement in nasal air flow also correlates with symptomatic improvement for obstruction unlike septoplasty as shown by Tajima et al.

This leads us to conclude that alar suspension suture is a reliable, safe and effective technique in managing nasal valve collapse.

REFERENCES