

**Division of Otorhinolaryngology  
Faculty of Health Sciences  
Tygerberg Campus, Stellenbosch University**

**Nasal Fracture Reduction under Local Anaesthetic**

At Tygerberg Hospital, uncomplicated nasal fractures are reduced under local anaesthetic in the outpatients department. ENT theatre time is at a premium and emergency lists are heavily booked with life-threatening emergencies, making it difficult to find theatre time to do a nasal fracture reduction under general anaesthetic. This study will determine the acceptability of the procedure to the patients as well as the success rate.

The reduction of nasal fractures under local anaesthetic is well tolerated and 95.5 to 96% of patients treated with this method would be prepared to undergo the same procedure again if they fractured their nose in the future.(1)(2) 63% of patients in one study found the procedure comparable to having a tooth filled by the dentist, and it is recommended that reduction under local anaesthetic should be first line treatment of an uncomplicated nasal fracture(2). The success rate of reduction is 67 to 71%, with the remainder requiring septorhinoplasty under general anaesthetic due to persistent nasal deformities. This is comparable to the results of reduction under general anaesthetic. (1)(2)

**Materials and methods**

Patients referred for reduction of nasal fractures are seen approximately ten days after the initial injury. They are assessed as to the need for reduction. All uncomplicated, displaced nasal fractures less than 16 days old with or without septal deviation i.e. class 1 and 2 (without the nasal pyramid crushed and driven posteriorly, i.e. class 3 fractures) will be considered candidates for reduction under local anaesthetic and will be entered into the study

A standardised method of local anaesthesia will be used with the application of amethocaine cream to the skin overlying the nasal bones for 45 minutes. Cocaine (2ml 10% solution) will be sprayed into the nose 10 minutes prior to attempted reduction. The fracture will be reduced using a combination of digital pressure and, if necessary, elevation of the nasal pyramid using Walsham forceps. A plaster of Paris cast will be applied post reduction and will be strapped to the face for 10 days. The level of discomfort at each stage of the procedure will be recorded and the patient will be asked at the end of the procedure whether they would be prepared to undergo the same procedure again if their nose were to be fractured in the future. The reduction will be assessed as to the success by the patient and the doctor as well as to the need for future formal septorhinoplasty under general anaesthetic.

## References

1. Reduction of nasal fractures under local anaesthetic; Green,K M;Rhinology 2001, March 39(1);43-46
2. Fractured nose reduction under local anaesthetic. Is it acceptable to the patient?; Owen,G O; Parker, A J; Watson, D J; Rhinology 1992, June; 30(2) 89 - 96