Summary

Diseases of the nose and paranasal sinuses are the most commonly reported diseases allover the world. Patients will have different complaints such as anosmia and hyposmia **(Samuel, A. Mickelson, Michael, S. Benninger, 2007).**

Functional endoscopic sinus surgery (FESS) is the most recent and advanced surgical procedure in treatment of these diseases. FESS is characterized by being minimal invasive technique **(Wellington S. Tichenor, M.D., 2007).**

Implicit in all types of nasal surgery is the potential worsering of olfactory function. Not only can injury occur to the delicate olfactory neuroepithelium itself, but also more indirect disturbances are engendered by pharmacologic agents, distortions of intranasal anatomy, persistent mucosal oedema, or crusts, and other processes **(Kimmelman, Charles P.M.D., 2004).**

Over the past decade surgical management of rhinosinusitis has completely changed. Introduction of telescopes into routine outpatient practice and their use intraoperatively to guide and focus attention on the middle meatus and osteomeatal complex has caused a

revolution in rhinology. The ability to see the site of disease within the nose

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and paranasal sinuses clearly has allowed surgeons to develop more meticulous and thorough techniques to remove diseased tissue and leave the nose functionally stable. In addition, these advances in optics have facilitated more detailed assessment and understanding of postoperative results. **(Aurelia Richards and Michael Gleeson, 1999; 319; 1110-1113 BMJ).**

Surgical management of sinusitis is considered when medical management fails to relieve the patient from the symptoms of sinusitis, when the patient's condition, unrelieved by medical therapy, is also associated with lower respiratory tract problems such as chronic bronchitis and asthma, and when complications of sinusitis are present or threatening. In general, patients who fail maximum medical therapy are potential candidates for surgical management. **(Daniel, G. Becker, M.D. 2002).**

We have identified large amounts of data on FESS.The majority of studies report that people’s symptoms improve following FESS with relatively few complications; however, only a small proportion of evidence is comparative. Results from non-comparative studies do not

inform the choices that need to be made by ear, nose and throat (ENT) surgeons and commissioners. Health economics data are also lacking and therefore cannot inform these decisions. FESS may offer some advantages in effectiveness over comparator techniques, but

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there is enormous variation in the range of results reported and there are severe methodological limitations. There is a clear need for quality controlled trials in order to answer questions regarding the effectiveness of FESS. **(Dalziel, K. et al., 2003).**

In order to smell something, molecules from the thing which is smelt have to enter the nose. Everything you smell, therefore, is giving off molecules. Those molecules are usually small, easy to evaporate chemicals that float through the air into your nose. A piece of metal has no smell because nothing evaporates from it. These molecules floating into your nose are called odorants. They stimulate sensory nerve cells (neurons) in the olfactory bulb called receptors, which send electrical impulses to the brain.

Human beings have a very weak sense of smell, and it doesn't always work well. When we have a cold, excess mucous blocks the receptor cells, and we have trouble smelling. When we smell the same odour for too long, the

receptor cells get 'tired', and stop sending signals to the brain, so we stop smelling the persistent odour. **(Christine Cadena, 2007).**

An individual's qualitative sense of smell is also affected by individual's personal experience and overall state of physical

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and mental health. Patient often ask the likelihood of subjective improvement in olfaction after functional endoscopic sinus surgery **(Holbrook, Eric H. MD; Leopold, Donald A.MD, FACS, 2003).**

Chronic rhinosinusitis symptoms include nasal obstruction, rhinorrhea, and facial pain associated with rhinosinusitis disability. When resistance to medical treatment is associated with endonasal anomalies, endoscopic nasal surgery can be proposed. However, objective and subjective assessment criteria regarding the evaluation of endoscopic nasal surgery outcomes remain unclear.

The aims of this study were to evaluate the correlation between the inflammation in the nasal mucosa, objective recordings of nasal airway resistance , subjective evaluation of symptom intensity, and the

impact of endoscopic nasal surgery on patient-perceived rhinosinusitis disability.

A good correlation was observed between subjective and objective nasal airway resistance .We found a significant correlation between the density of inflammatory cells in the nasal mucosa, subjective nasal obstruction, and the rhinosinusitis disability score . Recurrent chronic rhinosinusitis was seen only in subjects with moderate to severe inflammation of the middle turbinate mucosa sampled at the

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first surgical intervention. Subjective rhinosinusitis symptoms, objective nasal airway resistance , and rhinosinusitis disability improved significantly after endoscopic sinus surgery. **(Giger et al., 2003)**.