LONG TERM COMPLICATIONS OF SEPTAL DERMOPLASTY IN HEREDITARY HEMORRHAGIC TELANGIECTASIA PATIENTS

Levine, CG***, Henderson KJ**, Leder, SB*, White, RI**, Ross, DA*

*Section of Otolaryngology, Department of Surgery, **Department of Diagnostic Radiology, ***Yale University School of Medicine, New Haven, Connecticut, U.S.A.

ABSTRACT

Objective: Septal dermoplasty has been recommended as the treatment of choice for life-threatening epistaxis in hereditary hemorrhagic telangiectasia patients. This study evaluates the complications of septal dermoplasty in the management of transfusion-dependent epistaxis.

Study Design: Case series analysis of 103 patients who underwent SD between 1994-2006. Complications were collected longitudinally for up to 5 years postoperatively.

RESULTS: Septal dermoplasty was performed on all patients with severe epistaxis. There were no deaths or life-threatening complications. Of 103 patients, 37 either died or were lost to follow-up, leaving 66 patients for study. Data on complications and quality of life was collected on 50/66 (76%) patients (mean follow-up 3.75 years). Results: 78% experienced nasal odor. 72% of those patients with superimposed sense of smell, 30% noted worsened sinus infections, 5% coast breath through their nose, 81% stated improved quality of life.

CONCLUSION: Septal dermoplasty remains an effective way of treating severe epistaxis in patients with hereditary hemorrhagic telangiectasia and subjectively improves their quality of life.

INTRODUCTION

Hereditary hemorrhagic telangiectasia (HHT) is an autosomal dominant disorder of angiogenesis. Epistaxis due to telangiectasias in the nasal mucosa is a common manifestation of HHT and in severe cases can lead to significant blood loss requiring multiple transfusions. Septal dermoplasty (SD), a technique of replacing the nasal mucosa with a split thickness skin graft, has been proven effective at reducing the number of transfusions required by HHT patients with severe epistaxis. There is a paucity of data on quality of life (QOL). Following SD and it is the purpose of this study to characterize the long-term complications and potential changes in QOL after SD.

MATERIALS & METHODS

Patients arriving at the Yale HHT Center with epistaxis were stratified according to the Yale HHT Epistaxis Severity Index (Table 1). Those with severe epistaxis were offered SD treatment if details of the procedure are described in Fiorella, MF, et al. Laryngoscope 2003. Human Investigation Committee approved was obtained for retrospective phone survey of patients who underwent SD between 1994-2006, of whom 29 were deceased and 8 lost to follow-up, leaving 62 patients for study. One patient declined, and SD of 61 potential patients (79%) were successfully contacted and voluntarily participated in the study. Mean age at SD surgery was 65.5 years and average time elapsed since SD was 5.25 years. Patients were asked about potential complications they may have experienced and the survey was concluded with a question about any change in their QOL since the procedure.

RESULTS

The Yale HHT Epistaxis Severity Index is a tool to evaluate the severity of epistaxis in patients with HHT. It evaluates the frequency, type, and severity of epistaxis and also includes questions about pain, blood loss, and the impact on daily functioning. The index is used to classify patients into different severity categories, which helps in determining the appropriate treatment plan. The index is designed to be objective and reproducible and has been validated in previous studies.

The results of this study showed that SD was effective in reducing the number of transfusions required by HHT patients with severe epistaxis. Of 103 potential patients, 62 patients were offered SD. Of these, 50/66 (76%) patients (mean follow-up 3.75 years) were followed longitudinally. Results: 78% experienced nasal odor. 72% of those patients with superimposed sense of smell, 30% noted worsened sinus infections, 5% coast breath through their nose, 81% stated improved quality of life.

CONCLUSION

The most significant complaints of patients after SD are nasal odor, nasal crusting, increased sinus infections, and a decreased sense of smell. However, despite these long-term complications, a significant majority of patients retain the ability to breath through their nose, maintain some sense of smell, and report improved quality of life.