The Management of Paranasal Sinus Diseases with Visual Impairment

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ABSTRACT

Factors that affect visual function improvement after surgical treatment for inflammatory paranasal sinus disease (3 patients) and mucoceles (3 patients) complicated by visual impairment were evaluated. The visual acuity improved after surgery in all patients regardless of the presence or absence of optic nerve atrophy. Causative diseases, time until surgery, and optic nerve atrophy were not predictive factors of the postoperative recovery of visual acuity, and that the aggressive selection of surgical treatment is important.

INTRODUCTION

Factors that affect visual function improvement after surgical treatment for inflammatory paranasal sinus disease and mucoceles of the paranasal sinus complicated by visual impairment were evaluated.

METHODS AND MATERIALS

The subjects were 3 patients each with inflammatory paranasal sinus disease and mucoceles of the paranasal sinus surgically treated during the 2 years from April 2006 to March 2008. They consisted of 4 males and 2 females aged 13-92 years, with a mean of 70 years.

The inflammatory diseases were acute bacterial sinusitis in 2 (complicated by orbital subperiosteal abscess in 1) and fungal sinusitis in 1, and mucoceles were those of the ethmoid sinus in 2 and sphenoid sinus in 1.

Endoscopic sinus surgery was performed in all patients, and a concomitant adjuvant external procedure was necessary in 1 patient with inflammatory disease.

RESULTS

The mean time from the onset of visual impairment to surgery was 13 days in patients with inflammatory disease but 288 days in those with mucoceles, and atrophy of the optic nerve was noted in all patients with mucoceles.

However, visual impairment persisted in 4 of the 6 patients.

CONCLUSIONS

The results suggest that causative diseases, time until surgery, and optic nerve atrophy were not predictive factors of the postoperative recovery of visual acuity, and that the aggressive selection of surgical treatment is important.