Eosinophilic Otitis Media

Yoshihiko Esu*
Department of Otorhinolaryngology, Jichi Medical University Saitama Medical Center, Japan
*Corresponding author: Yoshihiko Esu, Assistant Professor, Department of Otorhinolaryngology, Jichi Medical University Saitama Medical Center, Japan
Submission: August 24, 2018; Published: August 30, 2018

Opinion

Otitis media associated with bronchial asthma could be classified into three grades based on middle ear mucosal thickness and thereby surgical treatment might be considered.

Mini Review

Intractable otitis media associated with bronchial asthma (BA) and allergic rhinitis has been described and otitis media with mucoid middle ear effusion containing eosinophils diagnosed "eosinophilic otitis media (EOM)". We classified EOM severity into three grades;

- A. Mild grade 1 (G1): Unthickened middle ear mucosa
- B. Moderate grade 2 (G2): Localized thickened mucosa within the middle ear
- C. Severe grade 3 (G3): Thickened or oedematous mucosa with predominant granulation tissue extend to extra ear canal.

G1 cases responded well to intratympanic triamcinolone acetonide (TA)

G2 cases required both TA and systemic glucocorticoids. G3 cases that with granulation were unresponsive to (tolerated) the treatment and pathological changes in the middle ear mucosa progress in these cases. The average air conduction hearing level also worsened. Surgical resection of granulation tissue with local application of a gelatine sponge containing glucocorticoids proved to be the best treatment method to avoid hearing loss. Classification based on middle ear pathology is useful for determining the appropriate, successful treatment for EOM.

Research

136 ears of 68 cases (38 women, 30 men; average age 56.1 years (range 32-80 years) were diagnosed bilateral EOM during January 2015 to June 2017 at the Department of Otorhinolaryngology, Jichi Medical University Saitama Medical Centre. The study included 96 G1 ears, 22 G2 ears, and 18 G3 ears before medical therapy.

The significant risk factors for G3 EOM were bacterial infection (P=0.017) and DM (hemoglobin A1c ≥ 6.5; P = 0.039) (odds ratios 4.55 and 3.95, respectively). History of ESS, uncontrolled BA (FEV1.0%>70%), and ongoing use of oral glucocorticoids were not risk factors for G3 EOM. Risk factors for granulation (G3) were the presence of bacterial infection (P=0.017) and association of DM (HbA1c≥6.5) (P=0.039) (odds ratios 4.55 and 3.95 respectively). Among severe cases (G3) of 18 cases, the 14 cases with responded to medical therapy indicated to surgical treatment. Thickened or oedematous mucosa with predominant granulation tissue in middle ear was surgically removed. The area was covered with a gelatine sponge containing TA. After the surgery, the severity level decreased from G3 to G2 in 12 ears, and hearing improved in four ears. Three ears showed normalization of the tympanic membrane, and seven ears had less otorrhea, which allowed use of hearing aids in seven ears.