



Eosinophilic otitis media a literature review

Volume 3 Issue 1 2013

ISSN: 2250-0359

*Balasubramanian Thiagarajan

*Madras Medical College

Abstract:

Eosinophilic otitis media is actually a recent introduction. These patients may manifest with sudden hearing loss. There may be associated bronchial asthma and allergic rhinitis. Diagnostic criteria of this condition are rather vague. A review of literature shows that demonstration of eosinophils in the middle ear secretion of these patients could be considered to be pathognomonic of this condition.

Introduction:

Eosinophils are considered to be effectors for allergic reactions. Eosinophilic otitis media ¹ is a newly recognised entity causing intractable middle ear pathology. This condition is characterised by excessive accumulation of eosinophils in the middle ear cavity and is associated with persistent middle ear effusion. These patients usually suffer from bronchial asthma. The first description of this condition should be credited to Koch ² who first reported some patients with middle ear effusion which contained lots of eosinophils. He also added that these secretions were highly viscous and the middle ear mucosa was pinkish in color. The term eosinophilic otitis media was coined by Tomioka et al ³ in 1993.

Pathophysiology:

Pathophysiology of this condition is obviously allergy. These patients commonly had associated allergic rhinitis and bronchial asthma. Eosinophils could have been probably attracted to the middle ear cavity by the presence of IL 5 ⁴ inside the middle ear cavity.

Features of Eosinophilic otitis media ⁵:

1. Sudden deterioration of hearing
2. Bronchial asthma
3. Allergic rhinitis
4. Intractable otitis media
5. Persistent otorrhoea

Incidence:

Incidence of eosinophilic otitis media is not clearly known. Literature search puts it to be rather common cause of otitis media with effusion.

Management:

Patients diagnosed with this condition should be warned of the possibility of sudden deterioration of hearing.

Administration of systemic / topical steroids ⁶ could be of benefit in these patients.

Antihistamines and leukotriene receptor antagonists can also be used with benefit.

Grommet insertion is indicated in patients with acute sudden hearing loss.

References:

1. Iino Y, Kakizaki K, Katano H, Saigusa H, Kanegasaki S. Eosinophil chemoattractant in middle ear patients with eosinophilic otitis media. *Clin Exp Allergy* 2005;35:1370–6.
2. Koch H. Allergical investigations of chronic otitis. *Acta Otolaryngol* 1947;62(Suppl.):1–201.
3. Tomioka S, Yuasa R, Iino Y. Intractable otitis media in cases with bronchial asthma. Recent advances in otitis media. In: Mogi G, Honjo I, Ishii T, Takasaka T, editors. *Proceedings of the second extraordinary international symposium on recent advances in otitis media*. Amsterdam, New York: Kugler Publications; 1993. p. 183–186.
4. Nonaka M, Fukumoto A, Ozu C, Mokuno E, Baba S, Pawankar R, et al. IL-5 and eotaxin levels in middle ear effusion and blood from asthmatics with otitis media with effusion. *Acta Otolaryngol* 2003;123:383–7.
5. Suzuki H, Matsutani S, Kawase T, Iino Y, Kawauchi H, Gyo K, et al. Epidemiologic surveillance of “eosinophilic otitis media” in Japan. *Otol Jpn* 2004;14:112–7 (In Japanese).
6. Iino Y, Nagamine H, Kakizaki K, Komiya T, Katano H, Saruya S, et al. Effectiveness of instillation of triamcinolone acetonide into middle ear for eosinophilic otitis media associated with bronchial asthma. *Ann Allergy Asthma Immunol* 2006;97:761–6.