

삼출성 중이염의 병태생리

김 리 석 · 한 치 성

Pathophysiology of Otitis Media with Effusion

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(otitis media with effusion ; OME)

가 (se- rous otitis media), (secretory otitis me- dia), (nonsuppurative otitis media), (mucoid otitis media), middle ear ca- tarrh, glue ear, middle ear effusion (otitis media with effusion) 가 (tran- sudate) (barotrauma) 가 (air bubble) (airfluid level) 가 (exudate) glue가

3 , 3 가

가 가

1)

2)

: , 602 - 715 3가

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가

가
(Fig. 1).³⁾

역 학

가 Teele ⁴⁾ 3 9%가
, 12 62%가 1 ,
3 83%가 1 , 46%가
3 . 7 가
93% , 74%
3
(otitis prone) 12
6 11 가
, 4 5 .

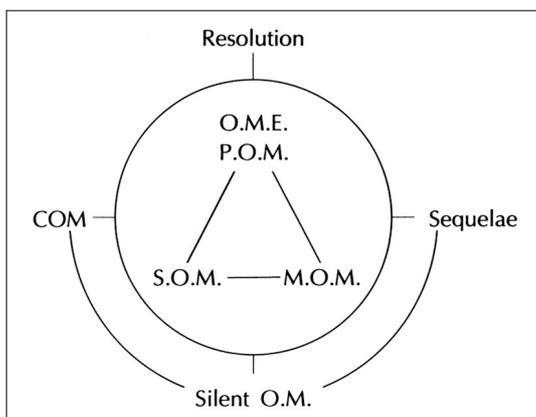


Fig. 1. Classification and continuum of otitis media. Otitis media with effusion(OME) is classified according to the type of fluid in the middle ear cavity : purulent otitis media (POM), serous otitis media (SOM), or mucoid otitis media (MOM). One form of OME may overlap with another, or advance to another stage in disease continuum. OME may resolve, or it may lead to sequelae, silent otitis media, or the irreversible pathology of chronic otitis media (COM). (From Paparella MM, Schachern P. *New developments in treating otitis media.* *Ann Otol Rhinol Laryngol Suppl* 1994 ; 163 : 7-10)

가 40
, 2
가 ⁵⁾
2 70% , 4 40% , 8 20%
, 12 10%
(Fig. 2).⁶⁾

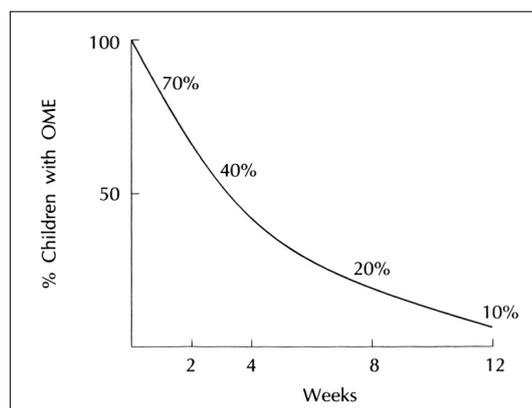


Fig. 2. Duration of effusion after first episode of acute otitis media. (from Teele DW, Kein JO, Rosner BA. *Epidemiology of otitis media in children.* *Ann Otol Rhinol Laryngol* 1980 ; 89 (suppl 68) : 5-6)

ctoferrin, lysozyme

병 인

(inflammatory mediators)

(vascular permeability) (secretory activity) 가 (Fig. 3).⁸⁾

이관기능부전

가

(compliant)

1)

, la -

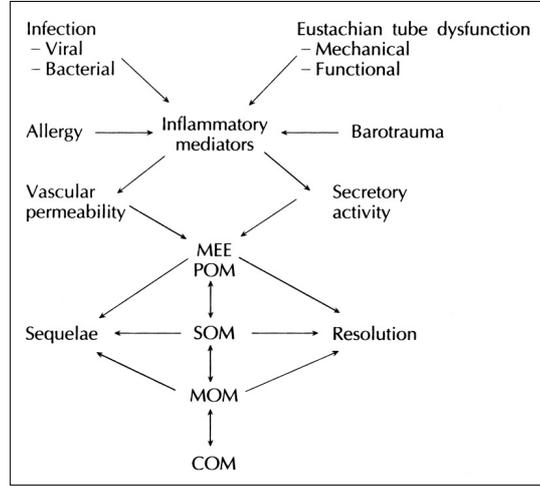


Fig. 3. Pathogenesis of otitis media (OM). Multiple factors contribute to development of OM. Most important factors are viral or bacterial infection, mechanical or functional eustachian tube dysfunction, allergy or barotrauma, which stimulate secretions of inflammatory mediators. In turn, these increase vascular permeability and secretory activity resulting in persistent middle ear effusions (MEE) either purulent (POM), serous (SOM), or mucoid (MOM). (from Jung TT, Rhee CK. *Otolaryngologic approach to the diagnosis and management of otitis media*. *Otolaryngol Clin North Am* 1991 ; 24 : 931-45)

:

(surfactant) (opening pressure)¹³⁾ 가 (compliance)가 (collapse) 가 (te- nsor veli palatini muscle)⁵⁾ 가 감염 가 Cantekin¹¹⁾ 가 가 (levator veli palatini muscle)¹²⁾ 가 Treacher Collins, Down, Apert Streptococcus pneumoniae, Haemophilus influenza, Moraxella catarrhalis가 가 (Fig. 4).¹⁴⁾ Post¹⁵⁾ polymerase chain reaction(PCR) 77.3% group A Streptococci, Staphylococcus aureus, Escherichia coli, Klebsiella, Pseudomonas aeruginosa 6 20%¹⁾ Peptostreptococcus, Fusobacterium spp, Bacteroides spp 가 10%

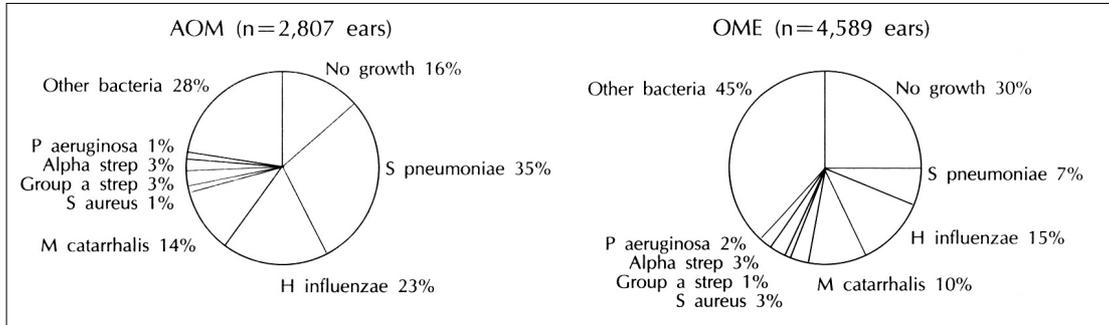


Fig. 4. Comparison of distribution of isolates in 2807 effusions from patients with acute otitis media (AOM) and 4589 effusions from patients with otitis media with effusion (OME) at the Pittsburgh Otitis Media Research Center between 1980 and 1989. Total percentages are greater than 100% because of multiple organisms. (From Bluestone CD, Klein JO. *Otitis Media in Infants and Children*. 2nd ed. Philadelphia, WB Saunders, 1995)

16) lactamase
 가 , H. influenza 15 30% , 가
 M catarrhalis S aureus - lactamase ,
 15) S pneum -
 oniae - lactamase lysozyme
 가 1)
 가 sulfa,
 trimethoprim, tetracycline, chloramphenicol, macr -
 olides, quinolones, aminoglycosides
 17) (subclinical antigenic stimulation) 9)
 가
 가 가 가 6 가 Honjo 20) 19)
 18) 가 가 가
 9) rhinovirus, adenovirus, en - pressure equalization
 terovirus, influenza virus, parainfluenza virus, res - 가 , 가
 piratory syncytial virus chla - 가
 mydia, mycoplasma 가
 가

21) Doyle

25) Skoner 26) Doyle

가 , Skoner 26) 가

10) priming effect 가

압력외상 (barotrauma) , , 가

27) 가

알레르기 가 가

28) 가

가 가

29) 가

5) 가 ,

가 가

1) , radioallergosorbent test(RAST) IgE

가 가 가 ,

IgE 가 가

22) Hurst³⁰⁾ RAST, IgE, 89% ,

가 87.5% eosinophilic cationic protein(ECP) ,

가 가

23) 가

24) 가

가
가

2)

중심 단어 :

병 리
가
collagen
가
가 가
가 가
가
가
(, ,)
가

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