

Research Articles: Middle Ear Effusion Allergy vs Acute Otitis Media

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Acute otitis media (AOM) is a common middle ear infection that is prevalent amongst children, however, there are some adults that are at an increased risk for, left untreated can cause hearing loss (Sharifian et al., 2019). Otitis media with effusion (OME) is known as a collection of fluid within the middle ear space that is nonperforated eardrum due to acute inflammation commonly associated with seasonal allergies/allergic rhinitis (Sharifian et al., 2019). The symptoms associated with seasonal allergies or allergic rhinitis are nasal congestion, clear rhinorrhea, sneezing, postnasal drip, and nasal pruritis (Akhouri, 2023). In this paper with the use of SQ case study and two peer-reviewed articles on OME and AOM in relation to allergic rhinitis and what signs and symptoms make each diagnosis different and how to distinguish the differences.

Case Study: SQ is a 35-year-old female came into the clinic with a chief complaint of cold/upper respiratory symptoms recent treatment of AOM. Physical assessment positive with OME, treatment with over-the-counter allergy medications.

Physical findings OME vs AOM

The first article reviewed was the Bacterial aetiology of chronic otitis media with effusion in children – risk factors. AOM presents with fever, earache, fatigue, and slight hearing loss (Sharifian et al., 2019). Physical examination of AOM using an otoscope is bulging, opaque, erythematous, and immobile tympanic membrane (Sharifian et al., 2019). Whereas OME present fluid behind the tympanic membrane, however there is no signs of inflammation or infection (Nash, 2022).

Allergic Rhinitis vs Common Cold

The second peer-reviewed article focused on allergic rhinitis versus common cold. Many patients are present at the clinic with stuffy nose and inability to clear their sinuses. Allergy season comes in the springtime and fall. The common cold usually lasts seven to ten days. Which can lead to secondary infections like sinusitis, bronchitis, or pneumonia depending on the persons immunity (De Sutter et al., 2022). Whereas the allergy lasts weeks and months. (Eguiluz-Gracia et al., 2020). Although decongestants and antihistamine can dry the nasal passages during a common cold they can often mask the allergy, and cause the patient to continue to use the antihistamine prolonged thinking the cold is lasting longer than it really is, when in reality the common cold is really allergic rhinitis (De Sutter et al., 2022).

Conclusion

AOM and OME can have a similar clinical presentation, however when performing the physical exam, OME is not inflamed or infected. Allergic rhinitis can also look like a common cold, however, prolonged runny nose, itchy eyes for greater than 10 days can be all allergy signs. With proper assessment and findings, the patient can be treated with antihistamines either over the counter Zyrtec 10 mg daily or a prescription for singular 10 mg daily. Most people like Zyrtec due to the nondrowsy effectiveness of the medication.

References

- Akhouri S, House SA. Allergic Rhinitis. [Updated 2023 May 20]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK538186/>
- De Sutter, A. I., Eriksson, L., & van Driel, M. L. (2022). Oral antihistamine-decongestant-analgesic combinations for the common cold. *Cochrane Database of Systematic Reviews*, (1).
- Eguiluz-Gracia, I., Mathioudakis, A. G., Bartel, S., Vijverberg, S. J., Fuertes, E., Comberiati, P., ... & Hoffmann, B. (2020). The need for clean air: the way air pollution and climate change affect allergic rhinitis and asthma. *Allergy*, 75(9), 2170-2184.
- Korona-Glowniak, I., Wisniewska, A., Juda, M., Kielbik, K., Niedzielska, G., & Malm, A. (2020). Bacterial aetiology of chronic otitis media with effusion in children-risk factors. *Journal of Otolaryngology-Head & Neck Surgery*, 49(1), 1-7.
- Nash, R. (2022). Acute Otitis Media and Otitis Media With Effusion in Adults. In *Scott-Brown's Essential Otorhinolaryngology* (pp. 51-55). CRC Press.
- Sharifian, M. R., Mahmoudi, M., Pourmomenarabi, B., & Keramati, M. R. (2019). Correlation between Allergic Rhinitis and Otitis Media with Effusion. *Iranian journal of otorhinolaryngology*, 31(105), 209–215.

References