



REVIEW ARTICLE

Chronic suppurative otitis media: A review

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otitis media (CSOM);
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Summary

Objectives: Chronic suppurative otitis media (CSOM) remains one of the most common childhood chronic infectious diseases worldwide. Although microbial, immunological, and genetically determined factors, as well as Eustachian tube characteristics, are supposed to be involved in the pathogenesis of CSOM, many aspects of the pathogenesis of CSOM still need to be clarified. Optimal treatment strategy has not been established yet. The objective of this review is to present and evaluate the current state of knowledge of CSOM.

Design: Systematic narrative review.

Methods: A PubMed search (1966–January 2005) was performed for studies on epidemiology, pathogenesis, clinical management, and complications of CSOM. All included articles were categorized according to level of evidence.

Results: Five hundred and fifty papers were identified, of which 79 were found to be relevant for this review. The definition of CSOM was found to vary. CSOM is a multifactorial disease. Regarding management of CSOM, there is no consensus as to what the optimal management strategy should entail. No convincing evidence is available for most medical and surgical therapies. Topical quinolones have proven effective, but need further monitoring regarding adverse effects.

Conclusions and recommendations: Important goals in research of CSOM should be achieving consensus about the definition of CSOM and gaining more in-depth knowledge of the pathogenesis of CSOM, especially the role of innate and adaptive immunity. There is also a need for further well-designed studies on the effectiveness of various management strategies for CSOM.

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1. Introduction

Chronic suppurative otitis media (CSOM) remains one of the most common childhood chronic infectious diseases worldwide, affecting diverse racial and cultural groups both in developing and industrialized countries. It involves considerable morbidity and can cause extra- and intracranial complications [1–5].

There are still many questions about the pathogenesis of CSOM and consequently about what the optimal management – medical and/or surgical – should entail.

In this article, the current state of knowledge in epidemiology, pathogenesis, complications, and management of CSOM is reviewed systematically from a clinical perspective, the ultimate aim being to provide the clinician a tool in the management of this condition. In this connection, future research goals will be identified.

2. Search strategy and selection criteria

A PubMed search was done for articles dating from 1966 to January 2005 with the MESH heading “Otitis media, Suppurative” in combination with text- and keywords complications, drug therapy, epidemiology, etiology, genetics, history, immunology, microbiology, pathology, physiopathology, surgery, and therapy. All studies in English on chronic suppurative otitis media in children and adults, containing these text- and keywords were considered for inclusion.

After critical assessment of the abstracts identified by the initial search, the full content of all potentially relevant papers was reviewed for final selection and data extraction.

The following articles were excluded: those dealing with topics other than CSOM, e.g. cholesteatoma; those focussing on technical aspects of surgery in CSOM; those with information included in more recent updates on CSOM.

Subsequently, a review of identified report bibliographies and a manual search of standard textbooks on ENT surgery was undertaken.

3. Results

The search resulted in 550 citations, which after applying the criteria for in- and exclusion left 79 articles for inclusion; 42 additional references were also used. The articles were independently categorized by two authors (M.V. and M.M.R.) in levels of evidence (Table 1) [6].

4. Definition

The textbook definition of CSOM is chronic inflammation of the middle ear and mastoid mucosa in which the tympanic membrane is not intact (perforation or tympanostomy tube) and discharge (otorrhea) is present [7–9]. There is, however, no consensus about the duration of the symptoms. The World Health Organisation (WHO) [10] defines CSOM as “otorrhea through a perforated tympanic mem-

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