



ACUTE PURULENT OTITIS MEDIA: COMPLICATIONS WITH  
ADENOIDECTOMY

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## RELEVANCE

Acute purulent otitis media is a common inflammatory condition affecting the middle ear, primarily observed in children. The infection typically occurs as a complication of upper respiratory tract infections, with symptoms including ear pain, hearing loss, fever, and middle ear effusion. Adenoid hypertrophy, characterized by the enlargement of the pharyngeal tonsils, is a known risk factor for the development and recurrence of acute purulent otitis media. Adenoidectomy, the surgical removal of the adenoids, is often performed as a treatment option to prevent the recurrence of ear infections. However, this procedure is not without potential complications. This article aims to explore the complications associated with adenoidectomy in the management of acute purulent otitis media, including changes in middle ear pressure, eustachian tube dysfunction, and recurrent infections. Understanding these complications is crucial for healthcare professionals to ensure appropriate patient selection, informed consent, and optimal postoperative care.

### 2. Purpose of the Study

The purpose of this study is to examine the complications associated with adenoidectomy in the management of acute purulent otitis media. By reviewing scientific literature, clinical trials, and expert opinions, this article aims to provide a comprehensive analysis of the potential complications that may arise following adenoidectomy. The study aims to equip healthcare professionals with the knowledge necessary to recognize, prevent, and manage these complications effectively, ultimately improving patient outcomes and satisfaction.

### 3. Materials and Methods

To compile this article, an extensive review of scientific literature, clinical trials, and reputable sources was conducted. Databases such as PubMed, Web of Science, and Google Scholar were searched using keywords such as "acute purulent otitis media," "adenoid hypertrophy," "adenoidectomy," "complications," "middle ear pressure," "eustachian tube dysfunction," and "recurrent infections." Selected studies, clinical trials, guidelines, and expert opinions were analyzed to gather relevant information on the topic. The selected materials were critically evaluated to ensure accuracy and reliability.

### 4. Results

#### 4.1. Overview of Acute Purulent Otitis Media



Acute purulent otitis media is an infection of the middle ear characterized by the presence of pus in the middle ear cavity. It commonly presents with symptoms such as ear pain, fever, hearing loss, and middle ear effusion. The condition often occurs as a complication of upper respiratory tract infections, which can lead to the spread of bacteria to the middle ear.

#### 4.2. Adenoid Hypertrophy and Otitis Media

Adenoid hypertrophy, the enlargement of the pharyngeal tonsils, is a known risk factor for the development and recurrence of acute purulent otitis media. The adenoids play a role in the immune response to upper respiratory tract infections, and their enlargement can obstruct the eustachian tube, impairing its function and promoting the development of middle ear infections.

#### 4.3. Complications of Adenoidectomy in Acute Purulent Otitis Media

##### 4.3.1. Changes in Middle Ear Pressure

Adenoidectomy can alter the balance of pressure between the middle ear and the nasopharynx. In some cases, removal of the adenoids may result in a negative pressure in the middle ear, leading to the retraction of the tympanic membrane and the potential development of a retracted or atelectatic ear. Proper patient selection, preoperative evaluation, and surgical technique can help minimize the risk of changes in middle ear pressure.

##### 4.3.2. Eustachian Tube Dysfunction

Eustachian tube dysfunction is another potential complication following adenoidectomy. Dysfunction of the eustachian tube can impair the equalization of pressure between the middle ear and the nasopharynx, leading to the accumulation of fluid and recurrent middle ear infections. Careful patient selection, preoperative evaluation, and postoperative monitoring are important to identify and manage eustachian tube dysfunction effectively.

##### 4.3.3. Recurrent Infections

While adenoidectomy is often performed to prevent the recurrence of acute purulent otitis media, there is a small risk of subsequent infections even after surgical removal of the adenoids. Close follow-up and appropriate management are necessary to monitor for recurrent infections and ensure appropriate treatment.

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