

**Predictors of Suppurative Otitis Media in
Pediatric Practice**

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Abstract: *The purpose of this research is to determine the risk factors for otitis media, a common childhood illness in developing countries, especially Asia. The goal is to lower the prevalence of hearing loss and deafness in neonates by carrying out meticulously designed epidemiological research. In order to determine which preschool-aged children in a rural town had the highest prevalence of middle ear infections, the study examined the entire preschool-aged population. It was observed that 8.6% of research participants had a middle ear infection. The most common symptom was otitis media with effusion (OME), which was followed by eustachian tubal block (ETB). The study found several risk factors, such as mouth breathing and snoring, recurrent upper respiratory tract infections, seasonal rhinitis, and persistent rhinorrhea. These factors significantly raised the risk of getting a middle ear infection. However, sociodemographic variables like age, gender, and socioeconomic position did not show up as major risk factors in this rural group. The study highlights the importance of routine screening programs to identify and address risk factors, as well as the treatment of enlarged adenoids, chronic sinusitis, and underlying nasal sensitivities. Ads against smoking should especially emphasize the harm that passive smoking causes to minors' otological and respiratory health.*

Key words: *otitis media, childhood ailment, prevalence, hearing loss, risk factors..*

Introduction

In underdeveloped countries, especially in Asia, otitis media is the most common childhood illness and the main cause of childhood hearing loss. A previous study done in 2007 found that 31 of the 34 children (6–10 years

old) with hearing loss (91.2%) also had otitis media concurrently [1]. It was shown that 17.6% of this particular population had otitis media. Otitis media prevalence has been recorded in several research on children from various Asian locations, with results ranging from 15.3% [2] to 20% [3]. Owing to the high frequency of this condition in children and its impact on hearing, well-designed epidemiological studies are essential to determine risk factors and therapies targeted at lowering the incidence of this condition. It is surprising to note that there has never been a systematic study done on the causes of otitis media in children. Studies conducted in Western nations indicate that a number of intrinsic and extrinsic factors, such as younger age [4], male gender [5,6], early onset of otitis media [5], low socioeconomic status [5,6], shorter breastfeeding duration [5,8-10], overcrowding [4,11], daycare attendance [4,6-8,11,12], recurrent upper respiratory infections [12], snoring [12], allergic rhinitis [13], and passive smoking [8,13], may increase a child's susceptibility to otitis media. Younger age, low socioeconomic status, large family size and overcrowding, exposure to household smoke, shorter breastfeeding duration, snoring, recurrent upper respiratory infections, malnutrition, and low parental education were found to be significant risk factors in a few studies conducted in developing countries where otitis media prevalence is high. Sociocultural variations within the populations under study are frequently reflected in the heterogeneity of risk factors between nations. The purpose of this study is to find shared risk factors for otitis media in a rural community where both affected and unaffected people share a number of sociodemographic characteristics. The preschool age group was the focus of this inquiry because it is commonly acknowledged that this illness affects them highly globally.

Materials and Methods

This investigation was carried out at Tashkent Pediatric Medical Institute's ENT department. The research was split into two sections: a case-control study to determine risk factors for otitis media and a cross-sectional study to determine the prevalence of otitis media in the study population.

Eighty of the 104 kids in the study age range showed interest in taking part in the investigation and going to the screening events. Before the kids were examined, their parents or legal guardians gave their informed consent. With a mean age of three years and eleven months, the children's ages varied from eleven months to seven years. 39 (51%) of the total participants were female, and 41 (49%) were male. The children's weight ranged from 4.5 kg to 21 kg, with a mean of 12.6 kg. Children classified as cases had an acute suppurative otitis media diagnosis, an otitis media with effusion diagnosis, or a chronic suppurative otitis media diagnosis. A control child who tested negative for otitis media was chosen for each case. Due to their increased risk of acquiring otitis media, children with Down's syndrome, cleft palates, immunodeficiency, and systemic disorders such juvenile diabetes and nephrotic syndrome were not allowed to participate in the study.

Results.

The children's weight ranged from 4.5 kg to 21 kg, with a mean of 12.6 kg. Children classified as cases had an acute suppurative otitis media diagnosis, an otitis media with effusion diagnosis, or a chronic suppurative otitis media diagnosis. A control child who tested negative for otitis media was chosen for each case. Due to their increased risk of acquiring otitis media, children with Down's syndrome, cleft palates, immunodeficiency, and systemic disorders such juvenile diabetes and nephrotic syndrome were not allowed to participate in the study. Thirty individuals (3.8%) with bilateral illness were among the OME cases. Additionally, in 3 out of 12 ASOM instances and 6 out of 11 CSOM cases, bilateral involvement was noted. Adhesive otitis media and aural cholesteatoma patients were not found. 36 instances (4.5%) had a Eustachian tubal block (ETB) diagnosis. The results of tympanometry revealed that 493, 40, and 31 patients had A, B, and C curves in their left ears, whereas 499, 48, and 33 patients had these curves in their right ears. When clinical symptoms were indistinguishable, tympanometry was useful in differentiating between patients with OME and those with ETB.

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