

**PRI SUSTVO NA ADENOI DNI
VEGETACI I NAZALEN GOVOR I
NAMALUVAWE NA SLUHOT VO
RELACI JA SO SEKRETOREN OTI TI S
MEDI A VO DETSKATA VOZRAS**

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Rezime

Studijata opfa}a 68 deca so sekretoren otitis media. Kaj decata se prisutni adenoidni vegetacii, nazalen govor, konduktivno namaluvawe na sluhot, poremetena ventilacija na Evstahievata tuba. Kaj si te deca e i ndi ci rana adenoi dektomi ja.

38 mom-i wa i 30 devoj-i wa na voзраст od 3-17 godi ni se podeleni vo dve grupi:

- 29 deca bez hipertrof i ~ni adenoidni vegetacii,
- 39 so prisutni hipertrof i ~ni adenoidni vegetacii.

Hirurgi ki ot tretman se sostoe{ e vo postavuvawe na ventilacioni cev~i wa i adenoiddektomi ja tamu kade { to ima{ e hipertrof i ~ni adenoidi.

Kliniki ot materijal be{ e analiziran sprema pragot na sluhot, sostojbata na srednoto uvo proceneta so tonalna audiometrija i timpanometrija pred i posle tretmanot.

Rezultati te uka` aa deca adenoiddektomijata vo kombinacija so ventilacioni cev~i wa go zabrzuva saniraweto na sekretorni otit kako i namluvaweto i o{ tetuvaweto na sluhot. Toa ovozmo` uva navremena restavracija na slu{ nata funkcija koja e va` en preduslov za razvi tok na jazikot, socijalni ot, emotivni ot i akademski ot razvi tok na decata.

Klu-ni zborovi: adenoidni vegetacii, nazalen govor, sekretoren otitis media

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**THE PRESENCE OF ADENOID
VEGETATIONS AND NASAL SPEECH, AND
HEARING LOSS IN RELATION TO
SECRETORY OTITIS MEDIA**

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Abstract

This study presents the treatment of 68 children with secretory otitis media. Children underwent adenoid vegetations, nasal speech, conductive hearing loss, ventilation disturbance in Eustachian tube. In all children adenoidectomy was indicated.

38 boys and 30 girls at the age of 3-17 were divided in two main groups:

- 29 children without hypertrophic (enlarged) adenoids,
- 39 children with enlarged (hypertrophic) adenoids.

The surgical treatment included insertion of ventilation tubes and adenoidectomy where there were hypertrophic adenoids.

Clinical material was analyzed according to hearing threshold, hearing level, middle ear condition estimated by pure tone audiometry and tympanometry before and after treatment. Data concerning both groups were compared.

The results indicated that adenoidectomy combined with the ventilation tubes facilitates secretory otitis media healing as well as decrease of hearing impairments. That enables prompt restoration of the hearing function as an important precondition for development of the language, social, emotional and academic development of children.

Key words: adenoid vegetations, nasal speech, secretory otitis media

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Voved

Sekretorni otitis media (SOM), naj-esto se javuva vo detskata voзраст, naj-esto kaj pred-ili{nite i u-ili{nite deca. SOM predstavuva nasobi rawe na te-nost vo sred-noto uvo bez znaci i simptomi za akutna inflamacija. Se smeta deka va`en faktor vo etiopatogenezata na SOM pretstavuva di sf unkcija na Evstahievata tuba auditiva. Decata so SOM imaat elevirani fluktuirajuki prag na sluhot od okolu 20 do 25 dB (1, 6), so ~uvstvo na polnost i bu~ewe na uvoto (1, 3).

Poprecizna dijagnoza na SOM se postavuva so timpanometriškoto ispituvawe koe ovozmouva objektivna procenka na pritisokot vo srednoto uvo i podvignost na timpanoosikularni otlanec. Naj-esto se dobiva kriva tip B, a mnogu poretko kriva tip C (Berry i so. 1975). Vo literaturata sprotivni se mislewata za vlijanieto na adenoidite, ni vnata gol emina i adenoidektomijata za tekot na bol esta.

Edni avtori smetaat deka imaat vlijani e na patogenezata na SOM, a drugi deka ne postoi signifikantna razlika vo nastanuva weto na SOM kaj slu~ai so ili bez hipertrof i~ni adenoidi (Cowenberge i sor. 1995) (3).

Celta na ovoj trud e da se odgovori na pra{aweto dali hipertrof i~nite adenoidni vegetacii vlijaat na frekwencijata, klini~ki ot tek na bol esta vrz baza na rezultate dobi eni od tretmanot na SOM (4, 5, 6).

Material i metodi

Klini~koto isleduvawe be{e sprovedeno kaj 68 deca, na voзраст od 3-17, koi bea podeleni vo dve grupi, vrz baza na rezultate dobi eni pri digitalna palpacija na epi fari nks i fiberepif aringoskopija.

Prvata grupa be{e sostavena od 29 deca koi nemaat hipertrof i~ni adenoidi i vtorata grupa od 39 deca so prisutni hipertrof i~ni adenoidi.

Introduction

Secretory otitis media (SOM) is one of the most common childhood concerns mainly in preschool and school children. SOM is a collection of fluid in the tympanic cavity without the signs and symptoms of acute inflammation. Abnormal Eustachian tube function appears to be the most important factor in the pathogenesis of SOM. Children with SOM typically have rather elevated, fluctuating hearing thresholds of about 20-25 dB (1, 6). They complain of ear fullness or tinnitus (1, 3).

Diagnostic accuracy of SOM can be confirmed by the tympanometry. Those measurements provide an objective assessment of middle ear pressure and tympanic compliance. Usually we obtain B tympanogram, sometimes C tympanogram occurs (Berry et al., 1975). In literature, the influence of adenoids, their size and adenoidectomy on secretory otitis media seems to be controversial.

Some authors maintain that enlarged adenoid influence considerably the illness and others do not observe a significant difference in SOM occurrence with or without enlarged (hypertrophic) adenoids. (Cowenberge et al. 1995) (3).

The aim of the study is to answer the question whether the presence of enlarged adenoid influences frequency, clinical course of the disease on the bases of the treatment results of SOM (4, 5 and 6).

Material and Methods

Subjects of the clinical investigation were a group of 68 children at the age of 3-17. Accordingly to the clinical examination (digital assessment and nasofiberscope) children were divided into 2 groups.

The first group consisted of 29 children without enlarged (hypertrophic) adenoids and the second group consisted of 39 children with enlarged (hypertrophic) adenoids.

Kaj decata od prvata grupa bea postaveni ventilacioni cev-i wa, a kaj decata od vtorata grupa pokraj ventilacioni cev-i wa be e napraveno i adenoidektomija. Tonalno audiometriško ispituvawe i timpanometrija be e napravena pred i po operacijata so pomo na audiološka aparatura (audiometer-Hortman CA 540) i klinički timpanometar (Hortman tip 87). Ne postoe e signifikantna razlika vo χ^2 -testot me u site grupi ($p>0,05$) (Slika 1).

Pome u 68 deca so SOM, 39 (57%) imaa hipertrof i ni adenoidi, χ^2 testot poka a deka SOM se pojavuva i vo dvete grupi na deca (oni e koi imaati oni e koi nemaati hipertrof i ni adenoidi). Spored testot na impendanca ($\chi^2=0,927$, $p>0,05$), vo grupata I i vo grupata II efekcijata na pojava na SOM na ednoto ili pak na dvete u i e sli na (Slika 2).

Rezultati

Rezultate se izrazeni kako prose ni vrednosti vo razlikata pome u koskenata i vozdu nata sprovodlivost pred i po hirurški ot tretman. Ne se doka a signifikantna razlika me u decata so SOM so ili bez hipertrof i ni adenoidi. Timpanometriški te testovi poka aa deka efekcijata na afekcijata na ednoto ili dvete u i e sli na vo dvete grupi. Evaluacijata na rezultate od sprovodni ot tretman se bazira e na promene te koi bea registrirani na timpanogramot (5).

Tie uka aa deka tretmanot e poefikasen i restarvacijata na sluhote pobrza kaj deca so SOM od vtorata grupa. ($\chi^2=1,62$ $p=0,02$)

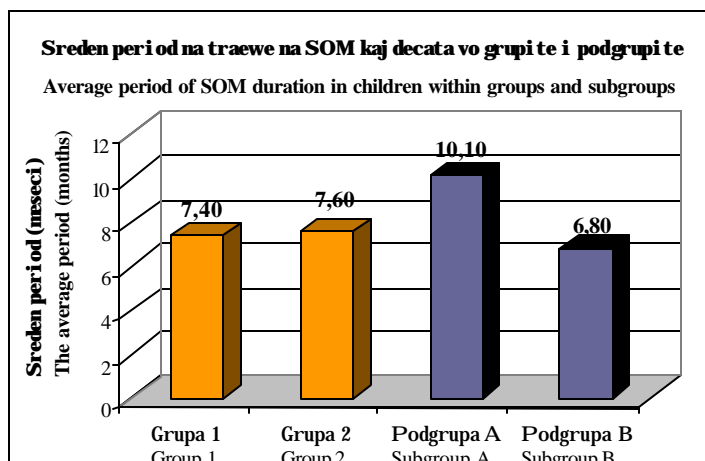
Ventilation tubes were inserted in children from the first group, and the children from the second group underwent adenoidectomy and ventilation tube insertion. The pure tone audiometry and tympanometry were performed pre and postoperatively using audiological equipment (Audiometer Hortman CA 540) and clinical tympanometer (Hortman type 87). There was not a significant difference in χ^2 -test between the groups ($p>0.05$) (Fig. 1.).

Among 68 children with SOM, 39 (57%) had enlarged adenoids, χ^2 test shows that SOM occurs with the same probability in children with and without enlarged adenoid. According to the independence test ($\chi^2=0.927$, $p>0.05$) in the first and the second group, the frequency of affection of one or both ears in children with SOM are similar (Fig. 2).

Results

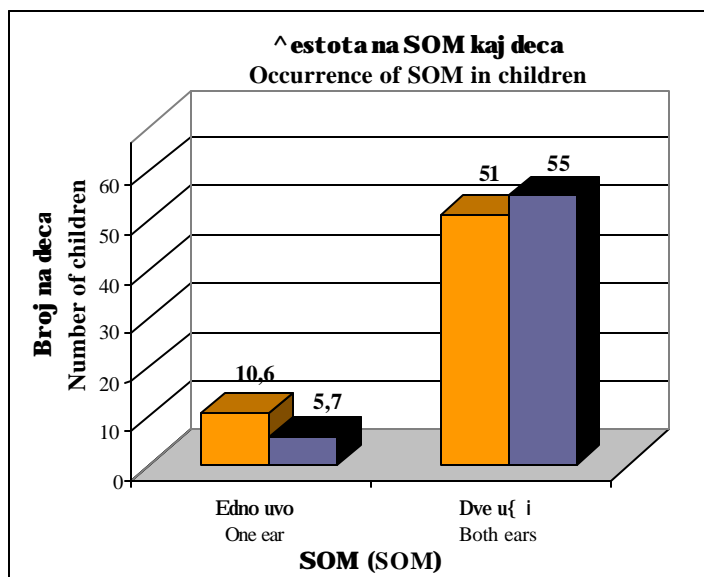
The treatment results were expressed as an average air bone conduction pure tone, and air-bone gap difference in pre and post surgical procedure. No significant difference was shown between children with SOM with or without hypertrophic adenoids.

All tympanograms tests showed that the frequency of affection of one or both ears in children with SOM is similar in both groups. Evaluation of treatment efficiency was conducted basing on changes registered on the tympanogram (5). They showed that the treatment is more efficient and the restoration of hearing is quicker in children with SOM from the second group. ($\chi^2=1.62$ $p=0.02$).



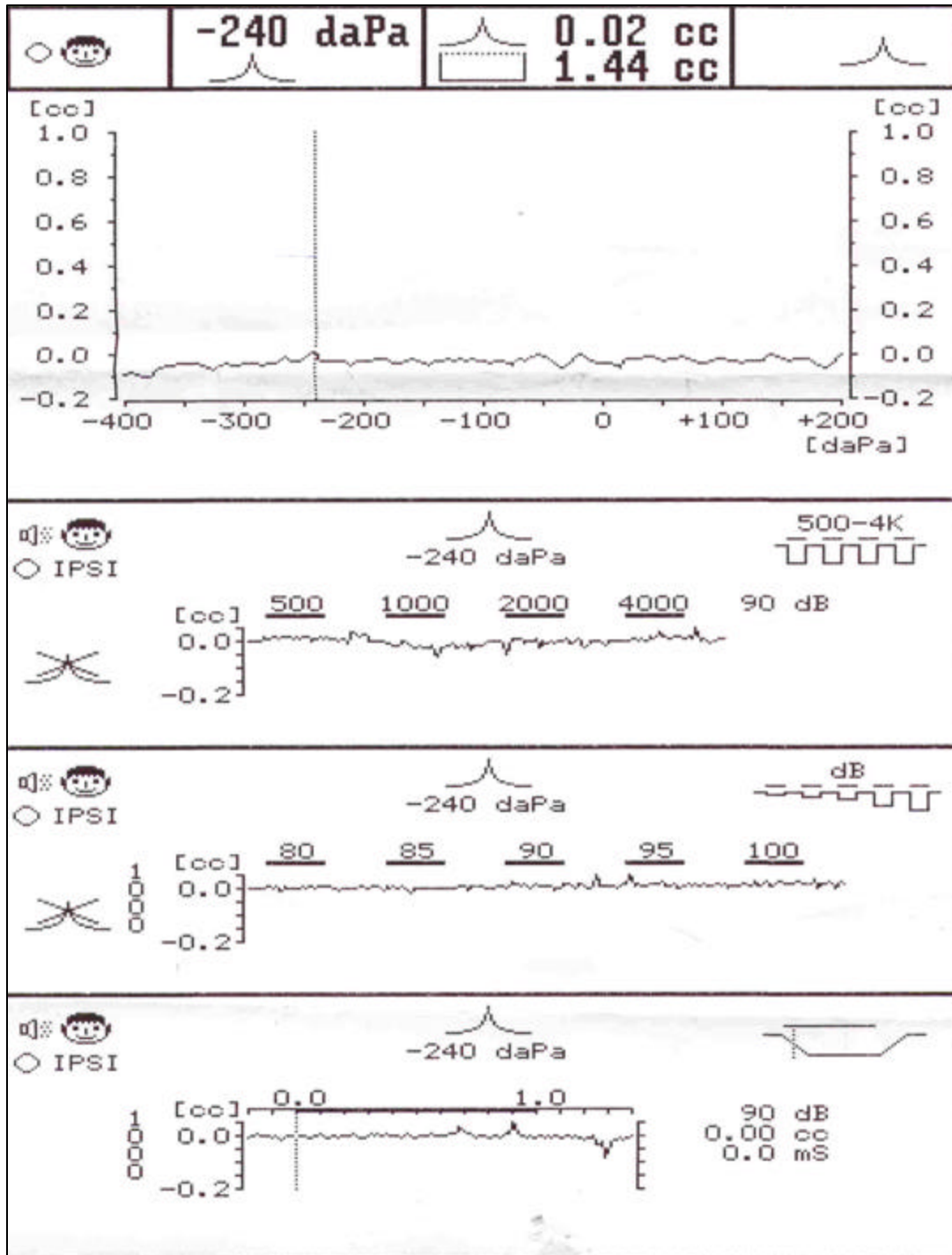
Slika 1 Sreden period na t raewe na SOM kaj decata vo grupi te i podgrupi te decat a podeleni vo grupi i podgrupi

Figure 1. Average period of SOM duration in children in groups and subgroups



Slika 2 ^est ot a na pojava na SOM kaj decat a ($\chi^2=1,62$ $p=0,02$)

Figure 2 Occurrence of SOM in children ($\chi^2=1,62$ $p=0,02$)



Slika 3 Timpanogram tip B. Konduktivna namaluvawe na sluhot

Figure 3. Tympanogram type B. Conductive hearing loss.

Diskusija

Mnogi kliniki~ari smetaat deka hipertrofi~nite adenoidi imaat vlijanie vo patogenezata na SOM, a drugi pak ne se soglasuvaat so ova~a teorija. Nedostatokot na zaedni~kata metodologija, razli~nite metodi na selekcija, mo`e delumno da gi objasnat ovie razli~ni stavovi. Rezultati te uka`uvaat deka nema di rektna vrska me|u golemi -nata na adenoidite i tekot na SOM. Kaj decata od vtorata grupa i ma{e pobrzo podobruvawe na sluhot po hi rur{ki ot tretman vo odnos na decata od prvata grupa (6, 7).

Adenoidektomijata go zabrzava sani raweto na SOM, najverojatno poradi odstranuvaweto na izvorot na infekcija i restravrirawe na proodnosta vo nazofarinksot i Eustahievata tuba.

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Discussion

Many clinicians emphasize the great influence of enlarged adenoid on SOM occurrence. Some investigators do not agree with this theory. Lack of agreement over methodology, different selection methods can partially explain these different opinions.

In our material among children undergoing ventilation tube insertion, in the second group enlarged adenoids were confirmed and they request adenoidectomy.

All our observations and other author opinions indicate profitable influence of the enlarged adenoid removal on healing process after ventilation tube insertion in SOM (6, 7). This may result from the infection source removal and restoration of the nasopharynx and Eustachian tube.

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