PRISUSTVO NA ADENOIDNI VEGETACII NAZALEN GOVOR I NAMALUVAWE NA SLUHOT VO RELACIJA SO SEKRETOREN OTITIS MEDIA VO DETSKATA VOZRAST

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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 site deca e indicirana adenoidektomija.

38 mom~iwa i 30 devoj~iwa na vozrast od 3-17 godini se podeleni vo dve grupi:

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

Hirur{kiot tretman se sostoe{e vo postavuvawe na ventilacioni cev~iwa i adenoidektomija tamu kade {to ima{e hipertrofi~ni adenoidi.

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

Rezultatite uka`aa deka adenoidektomijata vo kombinacija so ventilacioni cev~iwa go zabrzuva saniraweto na sekretorniot otit kako i namluvaweto i o{tetuvaweto na sluhot. Toa ovozmo`uva navremena restavracija na slu{nata funkcija koja e va`en preduslov za razvitok na jazikot, socijalniot, emotivniot i akademskiot razvitok 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 where 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 heeling 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**: ademoid vegetations, nasal speech, secretory otitis media*

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Voved

Sekretorniot otitis media (SOM), naj~esto se javuva vo detskata vozrast, naj~esto kaj predu~ili{nite i u~ili{nite deca. SOM predstavuva nasobirawe na te~nost vo srednoto uvo bez znaci i simptomi za akutna inflamacija. Se smeta deka va`en faktor vo etiopatogenezata na SOM pretstavuva disfunkcija na Evstahievata tuba auditiva.

Decata so SOM imaat eleviran i fluktuira~ki 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 timpanometriskoto ispituvawe koe ovozmo`uva objektivna procenka na pritisokot vo srednoto uvo i podvi`nost na timpanoosikularniot lanec. 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, nivnata golemina i adenoidektomijata za tekot na bolesta.

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

Celta na ovoj trud e da se odgovori na pra{aweto dali hipertrofi~nite adenoidni vegetacii vlijaat na frekfencijata, klini~kiot tek na bolesta vrz baza na rezultatite dobieni od tretmanot na SOM (4, 5, 6).

Materijal i metodi

Klini~koto isleduvawe be{e sprovedeno kaj 68 deca, na vozrast od 3-17, koi bea podeleni vo dve grupi, vrz baza na rezultatite dobieni pri digitalna palpacija na epifarinks i fiberepifarongoskopija.

Prvata grupa be{e sostavena od 29 deca koi nemaa hipertrofi~ni adenoidi ii vtorata grupa od 39 deca so prisutni hipertrofi~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~iwa, a kaj decata od vtorata grupa pokraj ventilacioni cev~iwa be{e napraveno i adenoidektomija. Tonalno audiometrisko ispituvawe i timpanometrija be{e napravena pred i po operacijata so pomo{ na audiolo{ka aparatura (audiometer-Hortman CA 540) i klini~ki timpanometar (Hortman tip 87). Ne postoe{e signifikantna razlika vo $?^2$-testot me|u site grupi (p>0,05) (Slika 1).

Pome|u 68 deca so SOM, 39 (57%) imaa hipertrofi~ni adenoidi, $?^2$ testot poka`a deka SOM se pojavuva i vo dvete grupi na deca (onie koi imaat i onie koi nemaat hipertrofi~ni adenoidi). Spored testot na inpendanca ($?^2$= 0,927, p>0,05), vo grupata I i vo grupata II fekfencijata na pojava na SOM na ednoto ili pak na dvete u{i e sli~na (Slika 2).

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 $?^2$-test between the groups (p>0.05) (Fig. 1.).

Among 68 children with SOM, 39 (57%) had enlarged adenoids, $?^2$ test shows that SOM occurs with the same probability in children with and without enlarged adenoid. According to the independence test ($?^2$=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).

Rezultati

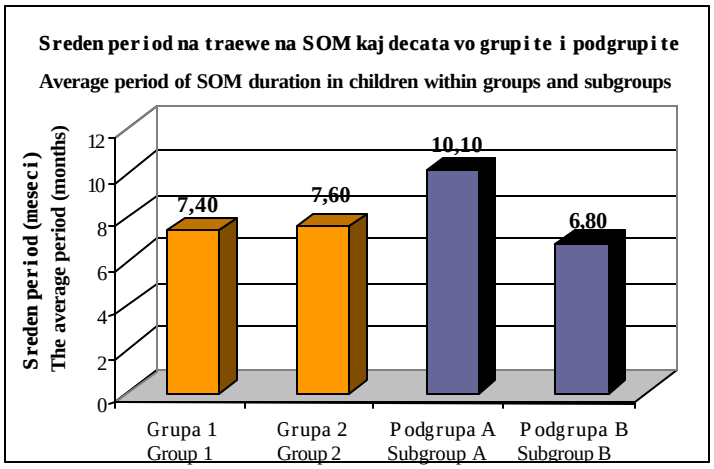
Rezultatite se izrazeni kako prose~ni vrednosti vo razlikata pome|u koskenata i vozdu{nata sprovodlivost pred i po hirur{kiot tretman. Ne se doka`a signifikantna razlika me|u decata so SOM so ili bez hipertrofi~ni adenoidi. Timpanometriskite testovi poka`aa deka frekfencijata na afekcijata na ednoto ili dvete u{i e sli~na vo dvete grupi. Evaluacijata na rezultatite od sprovodniot tretman se bazira{e na promenite koi bea registrirani na timpanogramot (5).

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

Results

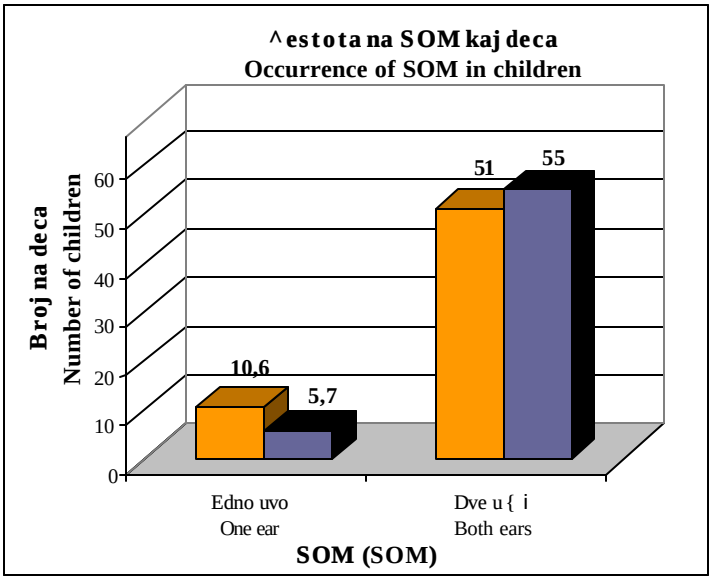
The treatment results were expressed as an average air bone conduction pure tone, and air-bone gap difference in pre and post surgical procedure. No significant difference was shown between children with SOM with or without hypertrophic adenoids.

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. ($?^2$=1.62 p=0.02).



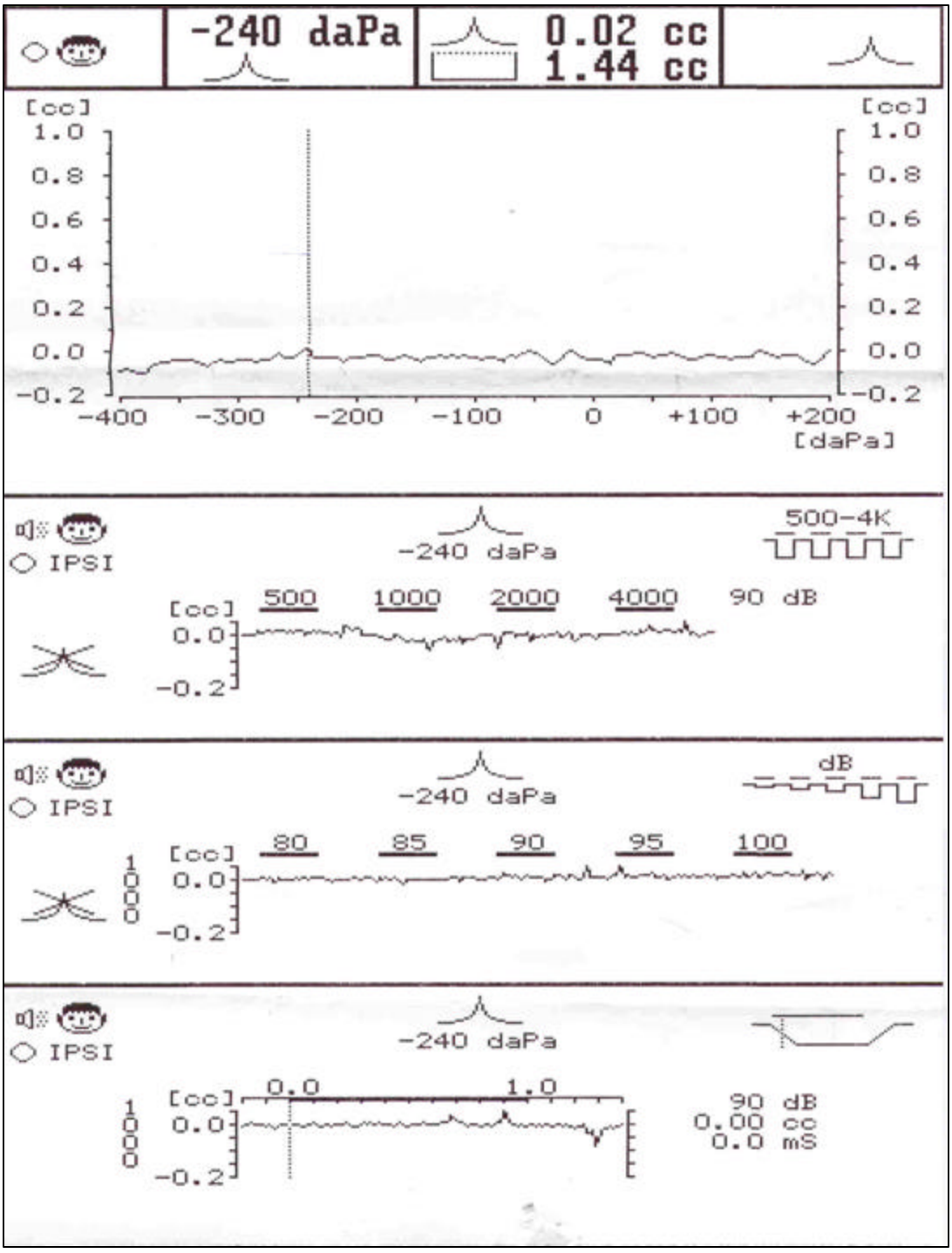
Slika 1. *Sreden period na traewe na SOM kaj decata podeleni vo grupi i podgrupi*

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



Slika 2 *^estota na pojava na SOM kaj decata ($?^2$=1,62 p=0,02)*

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



Slika 3. *Timpanogram tip B. Konduktivno namaluvawe na sluhot*

Figure 3. *Tympanogram type B. Conductive hearing loss.*

Diskusija

Mnogu klini~ari smetaat deka hipertrofi~nite adenoidi imaat vlijanie vo patogenezata na SOM, a drugi pak ne se soglasuvaat so ovaa teorija. Nedostatokot na zaedni~kata metodologija, razli~nite metodi na selekcija, mo`e delumno da gi objasnat ovie razli~ni stavovi. Rezultatite uka`uvaat deka nema direktna vrska me|u golemi-nata na adenoidite i tekot na SOM. Kaj decata od vtorata grupa ima{e pobrzo podobruvawe na sluhot po hirur{kiot tretman vo odnos na decata od prvata grupa (6, 7).

Adenoidektomijata go zabrza sanirawe to na SOM, najverojatno poradi otstranuvaweto na izvorot na infekcija i restravrirawe na proodnosta vo nazofarinksot i Evstahievata tuba.

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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