

ALGORITHM OF ADENOIDITIS TREATMENT IN ADULTS, DEPENDING ON THE PHARYNGEAL TONSIL HYPERTROPHY STAGE

ALGORYTM LECZENIA ZAPALENIA MIGDAŁKA GARDŁOWEGO U DOROSŁYCH W ZALEŻNOŚCI OD STADIUM JEGO HIPERTROFII

Yevhen V. Smiianov, Vladyslav A. Smiianov, Inna A. Sniehirova, Olha I. Smiianova

SUMY STATE UNIVERSITY, SUMY, UKRAINE

ABSTRACT

Introduction: Implementation of the endoscopic technologies while the upper airways diseases gave opportunity to diagnose the adenoid vegetation in adults.

The aim: To offer effective algorithm of curing adults for adenoiditis, depending on the degree of pharyngeal tonsil hypertrophy

Materials and methods: 43 patients aged 18 - 55 with hypertrophy of pharyngeal tonsil were examined. Depending on the degree of hypertrophy three clinical groups of patients was created: the first one receiving only conservative treatment, the second one receiving conservative therapy and radiowaveradiation coagulation with the apparatus "SURGITRON" and the third one receiving the endoscopic shave adenotomy. Statistical processing of the received data was made in the programs «Excel» and «STATISTICA 6.0». Data rows were checked for the normality with the help of Shapiro-Wilk statistical criteria (small sample) and Kolmogorov-Smirnov (large sample). Checking of the dispersion uniformity was done by Leneva criteria. During the comparison of the rows criteria of Student and Wilkoxon for the non-paired, Kolmogorov-Smirnov were used.

Results: During the re-examination of patients who received only conservative therapy treatment in a month endoscopic signs adenoiditis were distinguished and a year later percentage of relapse was higher than in patients with complex treatment. After shave adenotomy adenoiditis recurrence was not observed.

Conclusions: While treatment of the patients with the pharyngeal tonsil hypertrophy of the 1 and 2 degree conservative therapy is possible. Addition into the scheme of conservative treatment RWCAV actually reduces quantity of adenoiditis recurrence and allows fast recovery. Treatment of patients with the pharyngeal tonsil hypertrophy of 3 degree, in context of contraindication absence requires surgical treatment (adenotomy) in 100% of cases.

KEY WORDS: hypertrophy of pharyngeal tonsil, adenoiditis, radiowave surgery, adenotomy

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INTRODUCTION

Influence of the pharyngeal tonsil on the condition of the nasal cavity, auditory tube and throat are well-studied in the children's practice. Besides, the data about the frequency of the pharyngeal tonsil hypertrophy and influence of this pathology on the condition of ENT-organs in the adult patients are almost absent in the literature. Moreover, nasopharynx is not always available for the observation even in the post nasal rhinoscopy [1]. Diagnostics and curing of the pathological conditions of the nasopharynx remains one of the problems of otolaryngology, which demands further improvement [2].

Description of the special cases of adenoids in adult people and even in the elderly people can be seen in works of many authors [3, 4, 5, 6]. So, M.P. Mykolayv described two personal observations of the large adenoid vegetations in 51- and 75-year old patients, furthermore in one of the cases in morphological analysis evident inflammations (adenoiditis) were revealed [4]. M.V. Seniukov reported about his observation of the patient with adenoids at the age of 58 [7]. N.P. Mikhalkin and L.I. Yakub in the work "Adenoids and adenoidism in the adults" (1940) described the results

of observation of 400 adult patients with ENT-pathology. Adenoid vegetations were revealed in 57 patients (39 male and 18 female), at this the majority of the patients were at the age of 26-30 years [8]. Characterizing this group of patients in details, authors pointed at some special features in the adults with the hypertrophy of pharyngeal tonsil: 34 % had the pathology of middle ear (chronic otitis media, otosclerosis), 59 % had chronic rhinitis, 21 % - nasal septum deviation.

ination nasopharynx lymphatic tissue in adults on the dead body material was conducted by A.G. Nihinson (1952). He discovered the presence of the adenoid tissue in the nasopharynx of 62 dead bodies among 95 investigated. In the number of cases the aggregation of the adenoid tissue was quite huge [9]. A.G. Volkov with co-authors (1999) reported about 103 adult patients at the age of 15-66 with adenoiditis [10]. G.S. Protasevich with co-authors (1999) operated on 127 patients at the age of 18-45 years, at this adenoids of the II-degree were revealed in 92 individuals, of I-degree in 22 individuals, III-degree in 8 individuals and IV-degree (according to the classification of V. T. Palchun and N. A. Preobrazhenskiy, 1978) – in 5 patients [11].

Distribution according to the age and sex

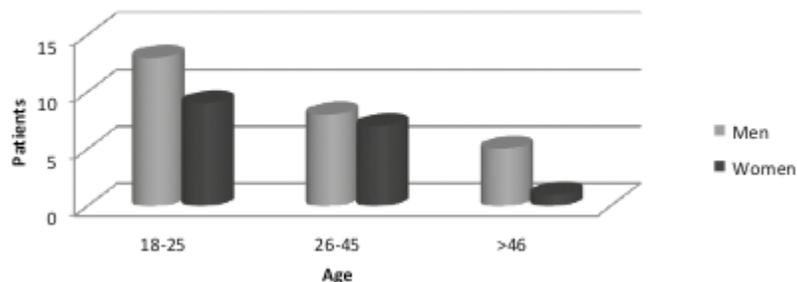


Fig. 1. Distribution according to the age and sex

Distributions of the complaints according to pharyngeal tonsil hypertrophy degree

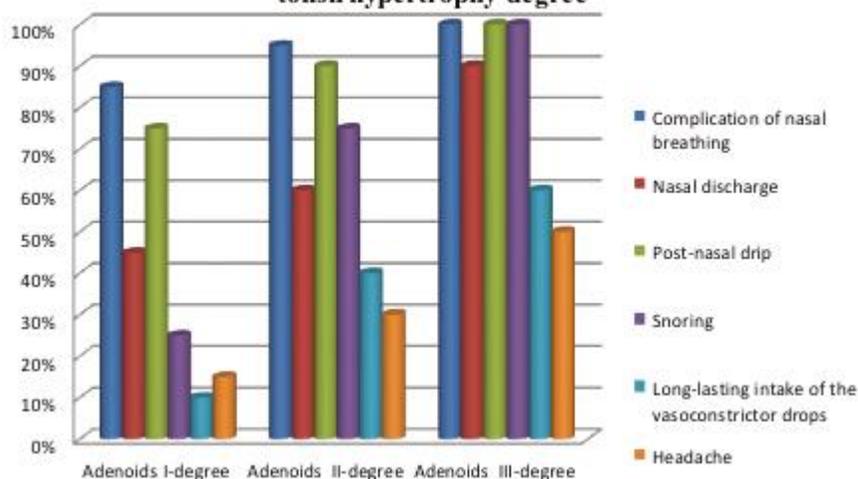


Fig. 2. Distribution of the complaints according to pharyngeal tonsil hypertrophy degree

Surgeries in the past

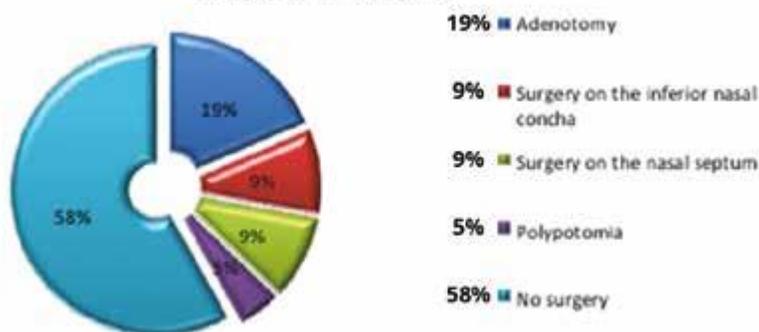


Fig. 3. Surgeries in the past

In the contemporary literature authors give various data as to the spreading of adenoid vegetations in adults. Thus, S.E. Iliinskiy, A.A. Shilenkov, M.G. Mikhailov, V.S. Kozlov in the screening assay of the adult patients with nasal and paranasal sinuses diseases found out adenoid vegetations in 23,4 % of observed patients [12].

A.L.Hamdan, O.Sabra, U.Hadi reported that the spreading of the hypertrophy of pharyngeal tonsil in the adults with the nasal obstruction reaches 63,6%, though in the clinically health people – 55,1% [13].
 Ilianskiy, S.V. Chernishenko, E.N. Ramazanov, T. Duriagina di adenoid vegetations in 23,7 % of adult patients [14].

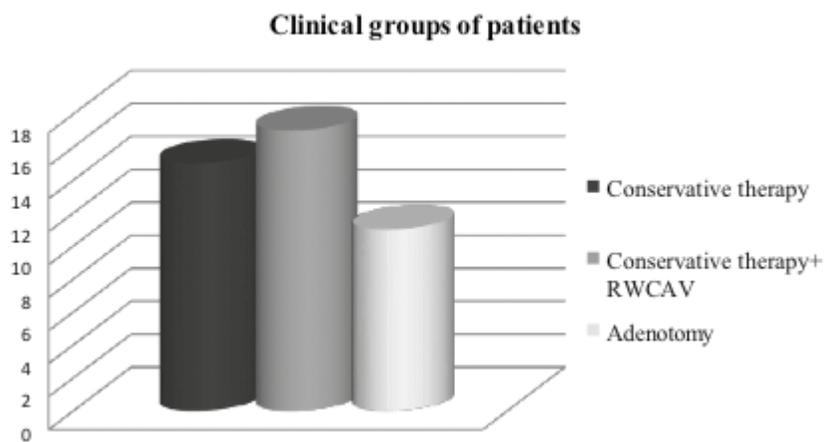


Fig. 4. Clinical groups of patients

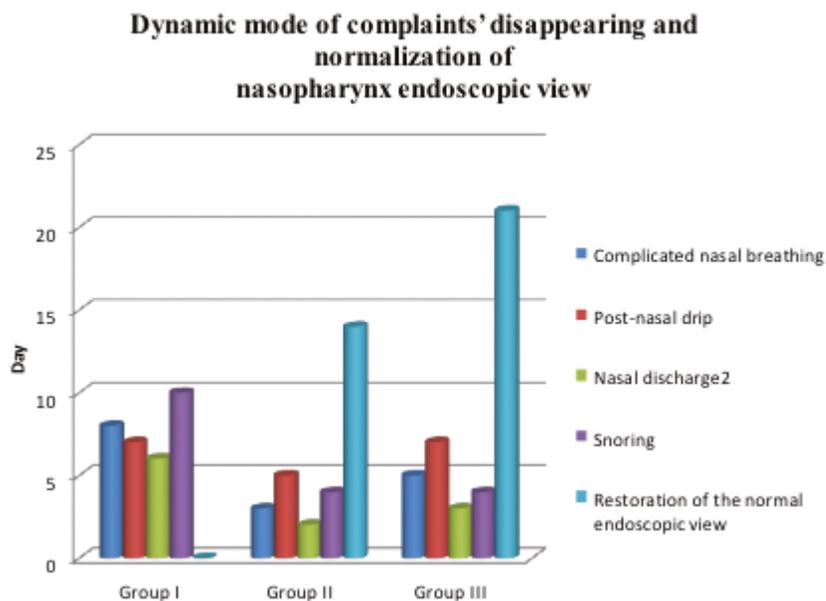


Fig. 5. Dynamic mode of complaints' disappearing and normalization of nasopharynx endoscopic view

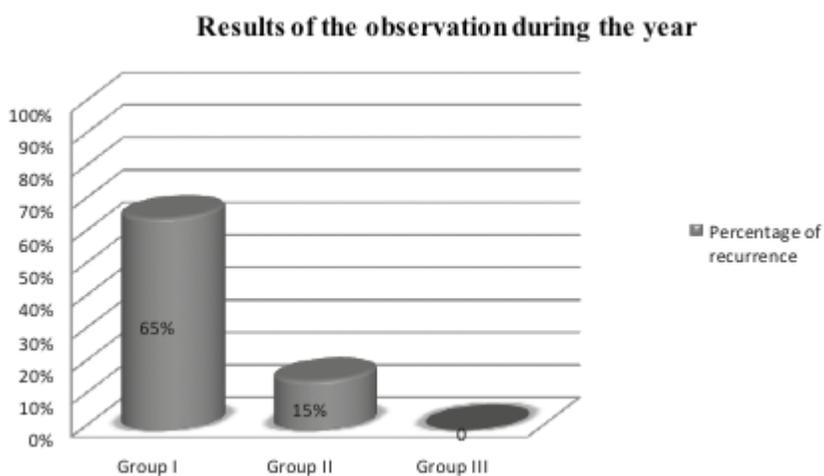


Fig. 6. Results of the observation during the year

THE AIM

Aim of work – to offer effective algorithm of curing adults for adenoiditis, depending on the degree of pharyngeal tonsil hypertrophy.

MATERIALS AND METHODS

43 patients at the age of 18-55 years (29 male and 14 female) with the hypertrophy of pharyngeal tonsil of different degree were observed by us (fig.1).

On of each patient included: collection of complaints, present history of disease, rhinoscopy, otoscopy, pharyngoscopy, indirect laryngoscopy, X-ray study of the area around paranasal sinuses, methods of laboratory assessment, computer assisted tomography of the area around the paranasal sinuses was done under necessity. The condition of the nasal cavity, nasopharynx, auditory tubes openings, pharyngeal tonsil, was specified with the help of 4mm 30° rigid rhinoscope, produced by the company "MFS" (Russia).

On complained upon the complication of nasal breathing, nasal discharge, post-nasal drip, snoring, forced long-lasting intake of the vasoconstrictor drops, headache (fig.2).

From the fig 2, the main complaints of the patients were on: complication of nasal breathing, post-nasal drip - patients with the I-degree of the pharyngeal tonsil hypertrophy, complication of nasal breathing, post-nasal drip, snoring – patients with the II-degree, complication of nasal breathing, post-nasal drip, snoring and nasal discharge – patients with the III-degree.

History of the present history it became obvious that 42 % (18) patients were operated on the nasal cavity or nasopharynx in the past (fig 3).

In 8 patients in the childhood adenotomy was done, in 4 patients – submucous resection of the nasal septum or septoplasty was done, in 4 – adenoidectomy was done and in 2 – polypotomia was done.

At first observation of the patients, with their consent, nasopharynx lymphoid tissue biopsy was done. The methodology was the following: under application anesthesia of 10% lidocaine solution, controlled by the 4 mm 30° rigid rhinoscope with the help of the Weil-Blakesley Nasal Bone Cutting Forceps №1 fragments of the pharyngeal tonsil were taken from three different places. Bleeding was poor, hemostasis was spontaneous in 3-5 minutes.

Patients, depending on the chosen therapy, were distributed into 3 clinical groups (fig. 4). The I-group consisted of 15 patients with the pharyngeal tonsil hypertrophy of the 1 and 2 degree, who were established conservative therapy, the II-group consisted of 17 patients with the pharyngeal tonsil hypertrophy of the 1 and 2 degree, who were established conservative therapy and radiowave radiation coagulation of adenoid vegetations (RWCAV). The III- group consisted of 11 patients with the pharyngeal tonsil hypertrophy of the 3 degree, to whom endoscopic shave adenotomy under general anesthesia was applied.

Conservative therapy included: sinus and nasopharynx rinse with the antiseptic solutions by deflection method,

cinnabsin, tonsilotren, topical steroids and in case of presence of attendant purulent pathology – systematic antibiotics therapy.

For the patients of the second group, along with conservative therapy, RWCAV with the help of radiowave radiation apparatus "SURGITRON" was performed.

Processing of the received data was made in the programs «Excel» and «STATISTICA 6.0». Data rows were checked for the normality with the help of Shapiro-Wilk statistical criteria (small sample) and Kolmogorov-Smirnov (large sample). Checking of the dispersion uniformity was done by Leneva criteria. During the comparison of the rows criteria of Student and Wilkoxson for the non-paired, Kolmogorov-Smirnov were used.

RESULTS AND DISCUSSION

Lymphoid tissue was defined according to the histopathological examination. Pathomorphological changes were characterized by the lymphoid infiltration, connective tissue development, reduction of the lymphoid follicles quantity, accommodation of the mucous membrane and its epithelial tissue, creating on the surface and in the crypt wall tiny branches and papillae. Blood vessels became winding, vessels lumen reduced, and sclerosis of the vessels net was distinguished, often with full lumen obliteration. Presented features show the condition of the inflammation of pharyngeal tonsil – adenoiditis.

Effectiveness of the conducted therapy was grounded on the study of dynamic mode of patients' subjective complaints and objective data (restoration of the nasal breathing, normalization of the nasopharynx endoscopic view), absence of disease recurrence during one-year period of observation (fig.5).

Improvement of the nasal breathing and reduction of the post-nasal drip disappeared in the patients of the II-group on the 3-5 day of treatment, in the patients of the III-group on the 5-7 day of treatment, in the patients of the II-group on the 7-8 day of treatment. Restoration of the normal endoscopic view took place in the patients of the II- group on the 14th day, in the patients of the III-group on the 21st day of treatment. In the patients of the I-group on 5-7th day of treatment mucous membrane hyperemia disappeared, quantity of the contents of tonsil sulcus reduced, tonsil reduced in size, but unfortunately in a month while endoscopic examination the presence of pathological contents and pharyngeal tonsil hyperemia, namely adenoiditis, was acknowledged.

Recurrence observation during the year adenoid recurrence was seen in 65 % of the I-group patients, in 15 % of the II-group patients, and there was no cases of recurrence in the patients of the III-group (fig. 6).

Conducted analysis of the treatment results showed that after conservative therapy percentage of the disease recurrence is 65 %. Surgery treatment – adenotomy requires hospital stay for the patient and surgery conducting under general anesthesia that disturbs the usual life of the patient. Conduction of the radiowave radiation coagulation of adenoid vegetations along with conservative therapy does not

require hospital stay for the patient, general anesthesia and is done office based and has positive result in 85% of cases.

ry authors in the treatment of adenoiditis widely use physical methods: nasal irrigation with "shifting" by solutions of antiseptic, antibiotics, vitamin C, antihistamine and corticosteroid medicines; hydraulic vacuum irrigation of the nasopharyngeal tonsil [15, 16]. Cassab E. (1964) for the adult patients with adenoids and allergy recommended conduction of the immune therapy, which was successful and led to the reduction of nasopharyngeal tonsil that consists of lymphoid tissue [5]. According to the Berlucchi M. with co-authors (2008), adenoiditis's conservative treatment with immunocorrection allows to avoid adenotomy in the patients of any age [17]. However, there is no common opinion as to the tactics of treatment of nasopharyngeal tonsil inflammation, depending on the level of its hypertrophy in adult patients. Further researches will give an opportunity to propose rational schemes of conservative and surgical treatment, and to create medical reports of the medical help to the adults with the conjoint pathological processes in nose, paranasal sinus and NT (nasopharyngeal tonsil).

CONCLUSIONS

1. Treatment of patients with the pharyngeal tonsil hypertrophy of 3 degree, in context of contraindication absence requires surgical treatment (adenotomy) in 100% of cases.
2. The treatment of the patients with the pharyngeal tonsil hypertrophy of the 1 and 2 degree conservative therapy is possible
3. Inclusion into the scheme of conservative treatment RWCAV actually reduces quantity of adenoiditis recurrence and allows fast recovery.

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ADDRESS FOR CORRESPONDENCE

Vladyslav A. Smiianov

tel: +380507713008

e-mail: vladlor60@ukr.net

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