

АВТОРСКА СПРАВКА НА Д-Р АТАНАС НАЧЕВ ВЛАЙКОВ, Д.М.

за участие в конкурс за академична длъжност „доцент” в област на висшето образование 7. Здравеопазване и спорт, професионално направление 7.1. Медицина, научна специалност „Оториноларингология“, обявен в Държавен вестник брой 45/17.06.2022 г. за нуждите на Университет “Проф. д-р Асен Златаров” град Бургас

Цялостната ми продукция е в съответствие с областта на висшето образование, професионалното направление и научната специалност по обявения конкурс. Публикациите са в български и чуждестранни научни списания. В конкурса участвам с общо 16 заглавия на научни трудове и публикации. От тях: 1 хабилитационен труд (монография), 15 публикации публикувани в реферирани и нереперирани списания. В част от тях съм самостоятелен автор. Участвал съм в много конгреси и симпозиуми, като представям списък с избрани участия, голяма част от тях международни. Представям справка за 13 цитирания.

Научните публикации са от различни области на Оториноларингологията. Най-много голяма част от тях са свързани с диагностика и поведение при патологични състояния в ринологията.

1. Атанас Влайков - „АЛЕРГИЧЕН РИНИТ И КАЧЕСТВО НА ЖИВОТ“ – Монография, 120 стр.

В книгата „Алергичен ринит и качество на живот” са отразени принципите на диагностика, проучване и анализ на степента на ангажиране на качеството на живот на пациентите с алергичен ринит и факторите, които влияят върху силата на манифестиране на клиничните симптоми. Този научен труд допълва професионалната литература на тази тема в Република България, където въпросът за качеството на живот при различните заболявания тепърва започва да се анализира. Разгледан е много задълбочено всеки един аспект на заболяването, неговата епидемиология, патогенеза, съвременните класификации и диагностични и терапевтични методи. Разгледани и анализирани са редица условия от стила и начина на живот, които се считат за рискови и способни да повлияят клиничния ход на алергичните назални заболявания. Обърнато е задълбочено внимание на патогенетичните механизми на развитие на заболяването. Като следствие са анализирани влиянето на някои имунологични маркери – IL3,4 и 5, както и на IgE върху степента на ангажиране на качеството на живот на болните. Проучени са клиничните симптоми, които най-манифестно влошават чувството за субективното негативно себеусещане у засегнатите от алергична сино-назална патология.

2. Atanas Vlaykov, Tanya Tacheva, Tatyana Vlaykova, Valentin Stoyanov. Serum And Local Il-4,-5,-13 and Immunoglobulin-E In Allergic Rhinitis. Adv Dermatol Allergol 2020; XXXVII (5): 719–724. IF 1.361; CiteScore: 2.2; Q2.

Abstract

Introduction: Allergic rhinosinusitis (AR) is a clinical manifestation of a type 1 hypersensitive reaction. A complex of reactions involving components of the immune system – cells, mediators, cytokines, neuropeptides, adhesion molecules etc., are involved in the manifestation of the disease symptoms.

Aim: To evaluate the role of some serum and local cytokines and IgE molecules in the pathogenesis of AR comparing results in patients and healthy controls.

Material and methods: The study was conducted at the Prof. Dr. St. Kirkovich University Hospital and Medical University, Stara Zagora, Bulgaria.

Results: A trend towards higher serum levels in patients with AR compared to controls was found for IL-4, but with no significant difference. In the group of AR patients, those with the intermittent form had higher, although with no significance, interleukin 4 (IL-4) levels in the lavage compared to those with the persistent form. In nasal lavage fluids a tendency towards higher IL-5 levels was found in intermittent AR patients compared to those with persistent AR. A slight trend towards significantly higher serum levels of IL-13 in overweight patients compared to those with normal weight was found.

Conclusions: Regardless of the obvious differences of the concentrations of the cytokines studied in our groups, oftentimes no significant difference is observed. More studies should be conducted in order to show the role of IL-4, -5, -13, and IgE in the pathogenesis and severity of the disease.

3. **Vlavkov AN.** Application of SNOT-22 test and visual analogue scale in quality of life evaluation in patients with allergic rhinitis. *Folia Med (Plovdiv)* 2021;63(3):337-47.

Abstract

Introduction: Chronic nasal congestion in patients with allergic rhinitis can lead to sleep disorders and to sleep apnoea which, in combination with fatigue, can induce systemic effects, including irritability, weakness, malaise, and decreased appetite, growth retardation in adolescents, resulting in severe worsening of quality of life. Also, allergic rhinitis can affect social life, school performance, and productivity, especially in patients with severe disease.

Aim: The aim of the present case-control study was to investigate the impact of quality-of-life impairment and the main contributing symptoms in patients with allergic rhinosinusitis.

Materials and methods: During the survey from January to December 2018, 139 participants (111 with allergic rhinitis and 28 controls) were enrolled in the study. Participants in the clinical and control groups were invited to complete a quality-of-life questionnaire for patients with sino-nasal pathology (SNOT-22). For results, a comparison in terms of eye affecting itching, burning, redness, and tearing sensation, a 10-grade visual analogue scale table was presented.

Results: Comparing the clinical and control groups of healthy patients in the first SNOT-22, the value was significantly elevated as expected. The mean score (SNOT-22 total score) of the twenty-two symptom scores in patients was 2.52 ± 0.93 (0-5); by comparison, the value in the control group was only 0.64 ± 0.11 , with the difference being statistically significant ($p=0.001$). The results of the visual analogue scale for which the patients were asked to note the level of eye impairment: redness, burning, itching, and tearing that contributed to their negative sense of the quality of life, were eloquent. A statistically significant difference was found between participants with intermittent and persistent forms (6.06 ± 0.20 vs. 3.00 ± 0.25 , $p=0.001$), and between the entire clinical group with AR and the healthy controls included in the study (4.48 ± 0.22 versus 0.21 ± 0.03 , $p=0.000$).

Conclusions: Summarising the results of our study and the available literature, we have concluded that nasal congestion and the abundance of secretions are symptoms that disrupt mostly the quality of life in AR patients and significantly affect the quality of sleep and are inevitable consequences of both daytime tone and productivity.

The rich palette of symptoms that lead to deterioration of the mental and physical well-being of those affected by AR necessitates the need to sharpen the attention of professionals working for this type of pathology in order to strive to detail and differentiate the specific complaint and degree of quality of life deterioration.

4. Валентин Стоянов, Димитър Михайлов, **Атанас Влайков**, Златко Трифонов, Иван Нейчев, Орбитални усложнения от риногенен произход – с принос от един случай, Реферативен бюлетин по Офталмология 2010; 2:44-8.

Abstract

Orbital complications are rare, but serious occurring diseases. The most common reason is sinusitis acuta by children. In this report the authors present a clinical case of a 6 year old girl with orbital complication. They are described diagnostic methods, applied operative and conservative treatment, results and the outcome of this disease. Finally authors make conclusions about the necessity of evacuation of the primary focus as the most correct method for preventing the occurrence of complications.

5. **At. Vlaykov**, V. Stoyanov, Sialolithiasis – With Inputs From one Case, Trakia Journal of Sciences, *Vol.9, Suppl.1*, 2011; 9:7-9.

Abstract

The formation of calculus in the salivary glands is a rare disease, often occurring with nonspecific complaints. In this work the authors present a clinical case of a 72 year old woman with sialolithiasis. Described are methods of diagnostics, applied operational and conservative treatment results and the outcome thereof. Finally draw conclusions about the need for surgical removal of the gland as the most correct method to treat and prevent the occurrence of severe complications.

6. V. Stoyanov, **At. Vlaykov**, V. Marinov, Application of Arnica Montana and Phosphorus in Otorhinolaryngology, Trakia Journal of Sciences, *Vol.9, Suppl.1*, 2011; 9:10-12.

Abstract

In recent decades, along with the successful introduction of many innovative technologies, the scientists were searching non-traditional, but proven methods of diagnosis and treatment. In the scientific periodicals there are quite a few publications that confirm the successful implementation of homeopathic medicines to treat some common diseases of the ear, nose and throat. The aim of this study is to explore the application of some homeopathic preparations in clinical practice of otorhinolaryngology. The results by the clinical experience of several scientists have been compared concerning the effect by the implementation of homeopathic medicines in treatment of patients with diseases of the ear, nose and throat. Finally draw conclusions about the possible use of Arnica Montana and Phosphorus, especially at the prevention of intra- and postoperative bleeding as well as in complex treatment of dysphonia and bleeding after injuries and operations.

7. Valentin Stoyanov, Atanas Vlaykov, Dimitar Mihailov, Pavel Dimov. Orbital Complications of Functional Endoscopic Sinus Surgery, International bulletin of Oto Rhino Laryngology, 2014;1:14-17.

Abstract

Objective: Functional endoscopic sinus surgery (FESS) is an operating procedure for surgical treatment of diseases of the paranasal sinuses. There are precised indications for this surgical intervention. Like any invasive intervention there is a risk of occurrence of complications. Some of the most common are the orbital complications.

Methods: By analyzing the available literature, the authors compare and summarize the results of various studies on this subject.

Results: Orbital complications are rare but can be with severe consequences, including the complete loss of vision, and even death. Most of them after adequate treatment have not substantial implications but the underestimation can have serious consequences.

Conclusion: The first step to avoid complications is prevention. If we have doubts of complications they must be precised instantly and act responsibly towards them. In the presence of this complication, one should be immediately consulted with an ophthalmologist and periodic assessment of IOP and visual acuity.

8. Atanas Vlaykov, Dian Sharlanov, Dilyana Vicheva. Fourth Mandibular Molar in a Pediatric Patient – a Case Report. Rumanian Journal of Rhinology. 2015; vol.5 N.20:229-231.

Abstract

The authors present a clinical case of a young lady who has been made an orthopantomogram because of need of orthodontic treatment. On the X-ray is visualised a shading with characteristic of fourth retromolar tooth on the right mandible. Following surgical removal of the formation the authors confirm the rarely occurring in this region fourth retromolar tooth.

9. Vlaykov At, D. Vicheva. Nasal Pleomorphic Adenoma: A Case Report. International Journal of Science and Research (IJSR). ISSN 2319-7064 (online), 2015; 4(2):77-79.

Objective. Pleomorphic adenomas are the most common type of salivary gland tumors, wich can involve all major and minor salivary glands including also and upper respiratory and alimentary tracts, and rarely other places. These are benign tumors with continuous and discrete growth. Without treatment the mass can reach enormous size.

Material and Metods. We present a case of a massive pleomorphic adenoma in a 27-year-old female with a history of more than 15 years growing lesion, origin from his left nasal wing. Clinical examination showed a giant and multinodular tumour mass with soft-elastic consistency.

Results. The tumor was completely resected by total excision and folowed by macroscopically and histological examination. The histopathological conclusion was pleomorphic adenoma with negative surgical margins.

Discussion. Pleomorphic adenomas engage most frequently the major glands but may also arise from the minor salivary glands of the sinonasal region and nasopharynx. They also may arise from within the paranasal sinuses, but frequently the paranasal cavities are involved secondary from an intranasal lesion with extension. The differential diagnosis include other benign or malignant sinonasal tumors and the main treatment modality should be surgical.

10. D. Georgieva, S. Vassileva, **At. Vlaykov**. Prevention and Prophylaxis of Congenital Deafnes. Trakia Journal of Science, Vol. 13, Suppl. 2, 2015:107-109.

Good hearing is a prerequisite for normal mental and speech development while in adults hearing loss is related to limited hearing and communication difficulties, hearing may be reduced, mild, moderate, medium and heavy.

The objective is to inform people with congenital deafness on ways and methods of treatment.

The methods are: Hearing aids. Surgical techniques, Stapedektomy, Tympanoplasty, Transplant auditory bones and more, Cochlear implant

The surgical implantation is only the first step in helping children with congenital deafness. In the first years after the surgical intervention the child needs intensive auditory and speech training which are of significant importance.

Deafness depends on whether there is a dominant gen. Diagnosis is set on grounds of the anamnesis and the objective study.

11. **Vlaykov**, D. Mihaylov, V. Stoyanov, M. Platikanova. The Role of Serum and Local IgE Concentration in Quality of Life in Allergic Rhinosinusits Patients. Trakia Journal of Sciences, 2019.17; 3:212-215.

Abstract

Purpose: The task we set was to determine the concentrations of IgE molecules in serum and nasal lavage in patients with intermittent and persistent allergic rhinitis (AR) and to compare them with a control group of healthy volunteers, comparing the results with a quality of life questionnaire about their subjective feeling of potential health damage.

Material and methods: A comparison was performed between serum and nasal lavage IgE concentration in 50 participants - 40 cases and 10 controls.

Results: Serum level of IgE-total in the patients with intermittent (AR) was 284,19 IU/ml while in persistent (AR) patients - 215,29 IU/ml, but not significantly higher than in the controls -160,87 IU/ml. IgE antibodies in nasal lavage in IAR patients was 1,39 IU/ml, while in PAR was 1,65 IU/ml and 1,05 IU/ml in controls. Total score of SNOT-22 in IAR (2,16) and PAR (2,03) was significantly higher than in the controls (0,85).

Conclusions: In our study, although the different serum levels of IgE among groups, we did not find significant correlation between the concentration of IgE antibodies in blood serum or nasal lavage and the degree of impairment of the quality of life in patients with IAR and PAR assessed by SNOT-22 quality of life test.

12. **At. Vlaykov**, V. Stoyanov. A case of mid-frequency sensoryneural hearing loss. – Trakia Journal of Sciences, 2020.18; 1:89-92.

Abstract

Introduction: Mid-frequency sensorineural hearing loss (MFSNHL) is an unusual audiometric finding with a debatable etiology with unclear long-term results. In general, the middle frequencies are affected first, and the process progresses slowly to include all frequencies. There are also some cases where provocative factors have been reported. Purpose: The aim of the work is to present a clinical case in our practice of the rare occurrence of mid-frequency acoustic hearing loss and its diagnostic approach.

Material and methods: The patient has undergone a number of manual and instrumental tests to confirm or reject a specific cause of the hearing loss condition.

Results: A 52-year-old man was hospitalised with complaints of hearing loss for about a year, judging by the growing difficulty in making a phone call.

Conclusions: Generally, a U-shaped audiogram is thought to indicate hearing loss of genetic origin. However, this type of deafness is not unique to one particular type of genetic mutation. There are also numerous descriptions of non-genetic mid-frequency hearing loss in the literature. In the particular clinical case presented by us, it was concluded that this was a hearing loss, possibly of hereditary nature, after excluding another provocative cause, as well as due to anamnestic data on premature hearing loss in one of the parents.

13. **At. Vlaykov**. Unusual foreign body in the respiratory tract of children. Trakia Journal of Sciences, 2; 2022, 162-164.

Abstract

Objective: By "foreign bodies" should be understood all objects of external or internal origin that may block partially or completely the lumen of some parts of the respiratory system - nasal passages, larynx, trachea, bronchi. Most often foreign bodies in the respiratory tract occur in children under 4 y. o. They represent 80% of cases. Twice as often in boys. In 65% of cases, foreign bodies are food particles. 50% of them are accounted for: peanuts, walnuts, hazelnuts, chickpeas, and sunflower seeds.

Methods: The author demonstrates a case of an unusual foreign body in the upper airway in a 2 y.o. child. He presented at ENT Clinic in the University Hospital of Stara Zagora with sudden paroxysms of coughing and difficulty swallowing, which started during hugging his mom.

Results: It was performed an X-ray examination and visualized an object with a metal consistency that corresponded to a safety pin. Immediately was realized pediatric and anesthesiologist consultation and the patient was taken to the operating theatre and under general anesthesia, the foreign body was removed.

Conclusions: Aspiration of foreign bodies in the airways is accompanied by dramatic moments and often fatal and it is still a serious problem in Otorhinolaryngological and pediatric practice. This imposes the serious need to strengthen preventive actions in this direction by increasing the consumer culture of the people.

14. **At. Vlaykov**, St. Valkanov. A case of sino-nasal malignant melanoma. Trakia Journal of Sciences, 2; 2022, 165-168.

Abstract

Mucosal melanomas are rare malignant neoplastic disease, that originates from melanocytes in mucosal tissue. It is a tumor mass of the nasal cavity or paranasal sinuses and most commonly originates from the nasal septum, nasal turbinates, or lateral wall and rarely occurs in the floor and roof of the nasal cavity. Most people with nasal cavity melanomas present with atypical nasal symptoms. The authors demonstrate the clinical manifestation and the therapeutic process of a 65 y.o. patient with malignant melanoma in the sino-nasal region.

15. **Атанас Влайков**, Яна Милева, Димитър Михайлов, Нови технологии и помощни средства за хора с увреден слух, Сборник с Научни трудове XIX Международна научна конференция за млади учени „Мениджмънт и качество“, Юндола, България, 07-09.10.2010.

Abstract

Deafness is a symptom arising from various congenital or acquired abnormalities in structure and function of the auditory analyzer. In this statement the authors present modern methods of supporting and treating people with hearing loss or complete absence of auditory perception.

16. **Ат. Влайков**, В. Маринов, Д. Михайлов, Ат. Стефанов, В. Стоянов, Диференциална диагноза на главоболието с ОРЛ етиология, Сборник с доклади „III Научна конференция по оториноларингология за студенти и млади учени, Ст. Загора, България, 04-05.11.2011.

Abstract

Headache is polyethiological symptom who engaged people from ancient times. More often it is not life threatening nature, but significantly worse quality of life of patients. There are many diseases of the ear, nose and throat that may provoke it. In this work the authors present some of the most common nosological units, whose leading symptom was cranial pain.