EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES

VOLUME03 ISSUE07
DOI: https://doi.org/10.55640/eijmrms-03-07-21 Pages: 143-150

A RETROSPECTIVE ANALYSIS OF THE MAIN ETIOLOGICAL CAUSES OF LARYNCH AND TRACHEA DAMAGE

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ABOUT ARTICLE

Key words: Based on the foregoing, the development of scientific and technological progress.

Received: 18.07.2023
Accepted: 23.07.2023
Published: 28.07.2023

Abstract: The problem of treating patients with chronic stenosis of the larynx and trachea remains relevant to this day. Statistical data indicate a trend towards an increase in the total number of such patients, which is associated with an increase in road and domestic injuries, operational activity on the organs of the respiratory tract, a high frequency of resuscitation measures taken, etc. Although the development of scientific and technological progress has contributed to the development of new methods and approaches in the treatment of chronic stenosis of the larynx and trachea, often the pathogenetic validity of the therapy is not taken into account. Based on the foregoing, the aim of the study was a retrospective analysis of the main etiological causes of damage to the larynx and trachea, the methods of treatment taking into account the data of microbiological studies, as well as the impact of concomitant and associated pathology on the final outcome of treatment.

INTRODUCTION

Despite the significant progress made over the past decades in the treatment of chronic inflammatory diseases of the larynx and trachea, this problem requires further development. In particular, until now there is no clear justification for indications for one or another type of surgical intervention, depending on the etiology of the disease, the type and nature of damage to the larynx and trachea [2-9]. Existing methods of diagnosis and surgical treatment are not always effective, multi-stage , cumbersome, require significant treatment costs [3]. There is no systematic approach and adequate algorithm for the

treatment of patients with chronic inflammatory stenosis of the larynx and trachea. All this determined the need for the present study.

Diseases of the larynx and trachea currently bring significant social and economic damage to society, because. The main population is people of working age. The specified pathology can be attributed to the number of multifactorial , i.e. due to both external factors that have a damaging effect on the body as a whole, and factors that directly affect the organ [1,7-14], in particular, gunshot wounds, severe concomitant injuries, diseases requiring prolonged mechanical ventilation, tracheostomy , etc. If the etiological causes, pathogenetic features and principles of treatment are sufficiently covered in domestic and foreign literature and are often very optimistic [18–25], then the mechanisms of the reparative process in severe structural and functional injuries of the larynx and trachea have not yet become the subject of scientific research. The problem of regeneration of organs and tissues after their damage is of great importance and is of particular relevance in patients with chronic cicatricial stenosis of the larynx and trachea of various etiologies [15-19,30]. Knowledge of the regularities of regenerative processes in damaged organs and tissues of the larynx and trachea, the study of the possibility of their regulation determines the contribution to the theory and practice of treating this disease.

It is known that reparative processes in pathological conditions are of great importance not only for organ compensation during the treatment period, but also determine its outcome, completeness of restoration of the structure and function of damaged organs [25-29]. Wound healing is a complex morphological and biochemical process, the course and outcome of which are significantly influenced by factors caused by both direct tissue damage and the associated primary or secondary infection, the level of protective immunobiological forces of the body, the reactivity and initial state of the patient, local immune status [31].

Based on this, the concept of the development of modern reconstructive surgery of the larynx and trachea becomes obvious - the creation of conditions for the simultaneous, possibly complete, reconstruction of damaged structures of the larynx and trachea. However, the issues of drug prevention of the cicatricial process, factors that determine reparative processes in the larynx and trachea at various times of treatment, and features of restoring the structural and functional state of damaged organs remain insufficiently covered.

MATERIAL AND METHODS

To achieve this goal, the case histories of 240 patients with various variations of chronic cicatricial stenosis of the larynx and cervical trachea, who were treated at the ENT clinic of TMA in the period from 2018 to 2023 , were studied .

Results and discussions. Patients were admitted for treatment from Tashkent, as well as regions of Uzbekistan and neighboring regions of Kazakhstan. Among the sick urban residents were 99 (41.25%), rural - 141 people (58.75%), of which adults - 129 (53.75%), children - 111 (46.25%).

The largest number of patients were persons aged 20 to 50 years - 108 people (45.0%). Of these, there were 60 males (55.55%), females - 48 (44.45%). The main contingent of children was at the age of 1-7 years (59 children or 53.15%), which was due to the high frequency of laryngotracheitis at this age, as well as the consequences of burns of the larynx due to parental oversight .. Of these, there were 42 boys, 17 girls (in the ratio 3.5:1).

According to the etiological factors of damage to the larynx and trachea, the patients were conditionally divided into 5 groups:

1. Consequences of resuscitation (intubation and tracheostomy) - 114 people. (47.5%).
2. Consequences of injuries of the larynx and trachea (open and closed) 69 people. (28.75%).
3. Consequences of surgical treatment on the organs of the "front neck" 33 people. (13.75%).
4. Consequences of burns of the larynx and laryngopharynx 15 people. (6.25%).
5. Unexplained causes (idiopathic) 9 pers. (3.75%).

A fairly large gap between the first two and the remaining groups of patients attracted attention. Almost half of all patients (47.5%) were persons of the first group. This included patients with severe brain injuries who needed a long stay on mechanical ventilation - 51 people (44.75%), children with complications of acute stenosing laryngotracheitis - 47 (41.2%), patients after other surgical interventions - 16 or 14.05%.

The second group was represented by patients injured as a result of a blow to the neck - 47 (68.1%), as well as with the consequences of autoinjuries in the larynx and trachea - 22 (31.9%).

The condition of each patient during hospitalization was determined on the basis of existing complaints, anamnesis, examination data, the structure of complications was assessed, the existing concomitant and (or) associated pathology was analyzed, in particular, diseases of the upper (URT) and lower respiratory tract (LRT), as well as the microbial landscape .

According to the retrospective analysis, all studied patients underwent surgical interventions. The scope of the operation was determined on the basis of the severity and localization of the process, as well as the time since the lesion. This is reflected in the sections of complaints, anamnesis morbi , status praesens and status localis case histories of the studied patients. It was found that at certain stages, preoperative and postoperative therapy underwent changes due to the likely lack of treatment effect and the inclusion of new drugs that selectively affect the processes of re-scarring and healing.

The introduction of the topical application of Kenalog-40, and subsequently Wobenzym, Infezol solution, IRS-19 into the treatment regimen, along with the appointment of laser treatment and correction of surgical tactics, especially in relation to "small" surgical interventions, significantly increased the effectiveness treatment, which was confirmed by a decrease in the number of operations up to 1-2 and the absence of re-appeal of these patients.

A large volume of surgical intervention was typical for a group of patients with lesions of several parts of the larynx or trachea at once. Such patients were present in almost all groups compiled according to the etiological factors of the lesion. The frequency of surgical interventions in such patients was an order of magnitude higher and averaged 7-10 or more, which indicated the absence of normal healing in patients.

To find out the reason for such a low efficiency of treatment, the case histories of 125 patients were purposefully selected. In 28 patients, there was a history of one or another pathology of the upper and lower respiratory tract, which was included in the diagnosis. Based on the analysis of complaints and data from st . praesens, an unidentified and undiagnosed pathology of the respiratory tract was established in another 51 patients.

It was possible to evaluate the lesion of the upper respiratory tract in a retrospective study only if the corresponding nosology was mentioned in the anamnesis, or if there was an X-ray examination of the nose and paranasal sinuses. According to the case histories, 5 cases of adenotomies were identified , 4 cases of adenotonsillotomies, and there were 8 x-rays indicating changes in the paranasal sinuses.

In the vast majority of cases, both concomitant and associated pathology in patients with chronic stenosis of the larynx and trachea was the pathology of the LDP, caused not only by the absence of normal physiological breathing through the larynx and the impact of a tracheotomy tube like a foreign body, but also by high infection of the mucosa of the underlying trachea and bronchi. According to the case histories, the established pathology of the lungs was diagnosed in 18.44% of cases, while when getting acquainted with the general status of the patient, it was more than 40.04%. The pathology of the

organs of the NDP was presented purulent endobronchitis, chronic tracheobronchitis, bronchopneumonia, focal pneumonia, emphysema or lung atelectasis.

As shown by the results of a retrospective study, the study of the microflora from the area of the tracheostomy and washings of the tracheobronchial tree in patients with chronic stenosis of the larynx and trachea was carried out only in 23 (18.4%) patients with clear manifestations of persistent LDP infection. Data from the study of the microflora of the upper respiratory tract could not be found. In the vast majority of cases, the appointment of antibacterial drugs was carried out empirically using mainly antibiotics such as penicillin, ampicillin, lincomycin, cefazolin, metronidazole, and some others. Only 8 patients (34.7%) showed sensitivity to the above antimicrobial drugs. In other cases, sensitivity was observed to other antibacterial groups of drugs, or was reduced. A fairly high sowing of associations of coccal and fungal flora was noted (in 8 or 34.7%), as well as S . aureus , P. _ Aeroginosae , Klebsiella spp . in 7 patients (30.53%), which indirectly indicated the presence of nosocomial and infection.

All of the above allows us to speak about the aggravation of the pathological process in the area of stenosis and a significant impact on the final outcome of treatment. Along with this, in the process of a retrospective study, a group of 18 patients (14.4%) was identified with no concomitant and associated diseases of the upper and lower respiratory tract, who had excessive scarring and poor healing of surgical wounds. This, accordingly, contributed to the lengthening of the rehabilitation of patients and an increase in the frequency of surgical intervention. In 7 patients of this group, it was not possible to achieve a final recovery at the time of the study, and they are at various stages of rehabilitation.

The conducted study of retrospective material showed that in the development of chronic stenosis of the larynx and trachea, among the etiological factors of damage, the first place is occupied by the consequences of resuscitation, as well as injuries of the larynx and trachea.

It was noted that not all types of surgical interventions had the same effect on the final outcome of treatment. Operations of the same name performed in patients with identical pathology, with the same management in the pre- and postoperative period, led to different results. Here, an important role is played by the involvement of the concomitant and associated flora of the upper and lower respiratory tract, the microbial landscape of the larynx and trachea.

In the process of a retrospective study of case histories, in more than 50% of cases, chronic stenosis of the larynx and trachea was accompanied by an associated pathology, the largest percentage of which was the pathology of the LDP (40.04%). Infection of the tracheostomy area, along with pathology from the LDP, led to the formation of numerous associations of microbes that are not always sensitive to

empirically prescribed antibacterial drugs. All this aggravated the patient's condition, led to frequent complications and prolongation of the patient's treatment.

At the same time, in a number of patients with the absence of the above factors, pronounced re-scarring or cases of secondary healing of surgical wounds were noted. In this contingent of patients, in most cases, the involvement of chronic infection from the side of the paranasal sinuses was noted, which, apparently, was also the reason for the increase in the frequency of operations and, accordingly, the duration of treatment in this group of patients.

CONCLUSIONS

Thus, a retrospective analysis of the case histories of patients with chronic stenosis of the larynx and trachea revealed a large number of factors that directly affect the final outcome of treatment. In this study, emphasis was placed on the presence of concomitant and associated pathology of the upper and lower respiratory tract along with the microflora of the tracheostomy area and their influence on the course of the underlying disease. However, the above factors do not always determine the course of the pathological process of the larynx and trachea. It was found that cicatricial deforming processes of the larynx and trachea are sometimes due to excessive pathological proliferation of connective tissue, which cannot be explained. In this regard, any solutions to the pathogenesis will be positive, and will be of progressive importance in the problem of treatment of cicatricial stenosis of the larynx and trachea.

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