

LARYNX PATHOLOGY AT PATIENTS WITH GASTRO-INTESTINAL TRACT DISORDERS

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Abstract:

The conducted clinical and instrumental study revealed that the aggregate group of the patients with chronic diseases of throat differs by increased frequency of isolated and combined disorders of gastro-intestinal tract. If a patient has such symptoms as hoarseness, tickling, scratching, burning, feeling of dryness in throat, frequent variant of gastro-intestinal tract disorders is gastroesophageal reflux disease with pharyngolaryngeal reflux. There are such severe pathologies of throat as pachydermia of vocal cords and nodules of vocal cords among more frequently met disorders at gastro-intestinal tract diseases. High probability of accompanied pathology of throat in the form of pachydermia and nodules of vocal cords at patients with gastro-intestinal tract disorders stipulates for the necessity of conducting fibrorhinolaryngoscopy in combination with fibergastroscopy.

Kew Words: Pachydermia, pathology of throat, gastro-intestinal tract disorder, interrelation, video image endoscopy

Topicality of the theme:

Long-term course of the functional diseases of throat, especially at people of voice and speech professions, leads to organic pathology of vocal apparatus. The mucous membrane of throat, larynx and gastro-intestinal tract represents non-separable whole, therefore, laryngitis in many cases develops simultaneously or subsequent to chronic gastritis or cholecystopancreatitis. One of the reasons of such symptoms occurrence is pharyngolaryngeal reflux leading to refluxate entering into the area located above the upper esophageal sphincter [O.P. Alekseyev and others, 2006; V.F. Privorotskiy, N.E. Luppova, 2000]. Lately the manifestations of gastroesophageal reflux disease outside esophagus, especially from the part of bronchopulmonary system and ENT-organs, attract more and more attention. The cause-effect relations of gastro-intestinal tract disorders with pathology of throat in spite of their frequent combination [A.D. Svishev, 2003; Rosbe K.W. et al., 2003] have been studied insufficiently fully.

Uncertainty of the problem related to adequate diagnostics of gastro-intestinal tract disorders at patients with the clinical picture of vocal dysfunction at throat pathology gave rise to the goal and determined the tasks of this work.

Goal of study – is to study interrelation between gastro-intestinal tract disorders at the patients with different vocal dysfunction.

Tasks of study: 1. To study interrelation between gastro-intestinal tract disorders and throat diseases and vocal dysfunction.

2. To define the priority of throat diseases and vocal dysfunction diagnostics methods based on complex clinical and instrumental study.

3. To conduct the comparative analysis of frequency of occurrence of gastro-intestinal tract disorders options depending on pathology of throat.

Materials and methods: The clinical and instrumental examination of 99 patients at the age between 50 and 60 years ($8,0 \pm 2,6$ years) – 62 male and 37 female with chronic diseases of throat with different disorders of gastro-intestinal tract or combination of these nosologies was held. The gastroenterological group included 39 patients with disorders of upper gastrointestinal tract according to the data of physical, endoscopic, X-ray examinations. The criterion of inclusion into otorhinolaryngologic group was presence of chronic diseases of throat in combination with vocal dysfunction. It included 60 patients followed up by the otolaryngologists with pachydermia of vocal cords (PVC, n=38) and “singing nodules” vocal cords nodules (VCN, n=22).

Fibrogastroduodenoscopy was held to evaluate the condition of mucous membrane of esophagus, stomach and duodenum as well as motor defects in the area of esophagogastric junction. The radiographic contrast study of esophagus made it possible to diagnose gastroesophageal refluxes of different degree of manifestation.

All patients were held the endoscopic study of throat and larynx by means of Karl Storz video endoscope with camera with 90⁰ angle of vision. Analysis of vocal function was held by means of Speech analyzer computer program. The patients' speech was recorded for objective study of vocal function. The patients called name, surname and patronymic, year of birth and date of study and then pronounced the vowel sounds "A", "И" and "Y" in a drawling manner. Analysis of signal was held by means of one of the options of software, this program is able to reveal the abnormalities in vocal range without specification of such acoustic parameters. This was made it possible to evaluate the presence of deviations in vocal function condition and to reveal the necessity of more detailed analysis.

In the otorhynolaryngologic group the endoscopic study was the basic one in establishing the diagnosis of chronic pathology of throat. In the course of study the endoscopic signs of pharyngolaryneal reflux were also defined: hyperemia and edema of mucous membrane of arytenoid cartilages and interarytenoid area, hyperemia of back sections of vocal folds, inflammable rollers in under folds section and pachydermia. In the course of study 93% (n=92) of patients from both groups complained about hoarseness, tickling, irritation, scratching, burning, and feeling of dryness in throat. The terms of disease were between 1 month and 20 years.

The statistical processing of obtained data was held at personal computer using Statistica 6.1, Microsoft Excel 2003 programs according to the medical statistics recommendations.

Following the results of study, the following was revealed: isolated disorder of upper sections of gastro-intestinal tract, combination of gastro-intestinal tract disorders and pathologies of throat, isolated disease of throat. The patients with combination of gastro-intestinal tract disorders and throat pathologies (n=56 – 56,6%) amounted the most part among examined patients (n=99). The isolated diseases of throat and gastro-intestinal tract were observed rarely (n=14 – 14,1% и n=14 – 14,1%, accordingly).

The analysis of the degree of throat pathology influence upon detectability of gastro-intestinal tract disorders was also of interest. The accumulative group of the patients with throat pathology included 60 patients followed up by otolaryngologists with above mentioned ENT diseases and 40 patients with initial diagnosis of reflux disease.

Pachydermias (n=33) and nodules of vocal folds (n=7) in combination with dysphonia were diagnosed at the patients with initial diagnosis of reflux disease. Pachydermia was located on vocal folds – 21 (63,7%), vestibular folds – 8 (24,2%), in interarytenoid area or near to arytenoid cartilages – 4 (12,1%). The following was revealed by means of endoscopy: hyperemia, edema of mucous membrane of arytenoid cartilages and interarytenoid area, hyperemia of back sections of vocal folds, inflammable rollers in under folds section and pachydermia n=33 (82,5%). Pachydermias had warty structure; they were similar to outgrowth or patchers. Coloring of pachidermia varied from whitish-grey to bright yellow or pink. Thus, frequency of revealing the specified pathological states of throat at the patients with gastroenterological practice was 66,7%.

The symptomatic analysis at the examined patients established certain influence of reflux disease option and gastro-intestinal tract disorder upon the clinical implications of pathology. There were regurgitation and vomiting (42,9% and 21,4%) at isolated disorder of gastro-intestinal tract. Vocal dysfunction was met among symptoms outside esophagus at the majority of patients at isolated disease of throat and combined option of reflux disease (80,0% and 66,7%, accordingly). The signs of endoesophagitis (77,8%) without evident frequency differences depending on reflux disease option were revealed at the majority of the patients who was held fiber optic esophagogastroduodenoscopy. Reflux disease with esophagitis signs (64,8%) was prevailing pathology of esophagus and without evident inflammatory changes of mucous membrane (22,2%).

The conducted acoustic analysis of voice (functionally limited under technical parameters) revealed by means of software the vocal dysfunction at all patients in different degree of manifestation. The radio graphic contrast study at 1/3 of patients didn't reveal the signs of contrast entering into esophagus (33,3%). The same study poorly reflected the level of reflux. The

gastroesophageal reflux of 3-4 degree was met insignificantly more often at combined option of reflux disease (26,9%) in comparison with gastroesophageal reflux disease (14,3%).

It is expedient to consider the revealed association of gastro-intestinal tract disorder with the diseases of throat from the point of view of cause-and-effect relationships. In particular, disorders of upper sections of gastro-intestinal tract are able to play a part of provoking factor of throat pathologies and to be its consequence by damaging the mechanisms of clearance of mucous membrane of respiratory tract upper divisions [Contencin P. et al, 1999, Wierzbicka M. et al, 2003].

The revealed patterns are likely to have interdependent nature and may reflect different pathogenetic mechanisms of ENT-pathology or degree of its influence upon gastro-intestinal tract disorders.

Conclusions:

1. The frequent option of gastro-intestinal tract disorders is gastroesophageal reflux with pharyngolaryngeal reflux.
2. The accumulative group of the patients with chronic diseases of throat differs by increased frequency of isolated and combined disorders of gastro-intestinal tract.
3. Presence of severe pathology of throat, e.g., pachydermia of vocal folds and nodules of vocal folds, is the most often pathology met at gastro-intestinal tract diseases.
4. High probability of accompanied pathology of throat in the form of pachydermia and nodules of vocal folds at the patients with gastro-intestinal tract disorders stipulates for necessity to conduct fibrorhinolaryngoscopy in combination with gastrofibroscopy.

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