

APPLICATION OF ESOPHAGEAL PH MONITORING IN DIFFERENTIAL DIAGNOSIS OF VOICE DISORDERS IN CHILDREN

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Introduction

Among pediatric patients treated with dysphonia in the Audiology and Phoniatrics Clinic a large group complains on coexisting disorders such as frequent infections, grunting, and chronic cough. In many of these patients we observe (using the videolaryngoscopy) lesions within the laryngeal mucosa that can correspond to extraesophageal manifestations of gastroesophageal reflux disease.

The relationship between some pathological changes of the larynx and diseases of the digestive track that cause occurrence of pathological reflux does not arouse any doubts. Manifestations of laryngopharyngeal reflux can however occur also in cases where no GER is observed.

Pathological changes of the laryngeal mucosa resulting from reflux can be assessed with the videolaryngoscopic examination. Examination of the larynx within the healthy control group indicates however that, similar laryngeal lesions can be found also in healthy volunteers who do not suffer from voice disorders or digestive tract problems. It is believed that there is no characteristic image of the larynx that confirms LPR. Dx-pH System is a device measuring acid reflux in the posterior part of the middle throat which does not need endoscopy or manometry and allows to discover reflux episodes, both liquid-containing and gaseous. The Dx-pH System may be a valuable complementation in the diagnostics of voice disorders.

Material

Material of the paper includes 42 children, 18(43%) females and 16(57%) males of aged 6 to 17 mean age was 11.4.

Method

All patients were examined with videolaryngostroboscopy and based on this the Reflux Finding Score (RFS) proposed by Belafsky was filled in. The patients or parents of patients were asked to fill in the questionnaire on Reflux Symptom Index – RSI proposed by Belafsky. All patients were examined with 24 hour pH metry of the throat using Dx- pH System.

Results

Laryngoscopic image of the larynx mostly presented congestion and edema of the laryngeal mucosa. Mean RFS value was – 7.5 (where max. is 26 points, < 7 a possibility of LPR occurrence).

Patients mostly complained on clearing their throat too often, hoarseness and secretion on the posterior wall of throat. Mean value of RSI was – 18.6 (where 36 points is maximum, < 13 a possibility of LPR occurrence). In 52.4 % of patients (22) reflux episodes were registered only in vertical position, in 28.6 % of patients (12) reflux episodes were registered in vertical and horizontal positions, in 19 % (8) no episodes were observed.

The device was well-tolerated by the patients, there were no complaints or problems with it.

Conclusions

1. The Dx – pH measurement system is a comfortable in use in everyday practice. It is well-tolerated by young patients.
2. The device is a valuable complementation in the diagnostics of voice disorders in patients who based on clinical image are suspected of LPR.