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Influence of manual myofascial techniques on normalization of the voice organ in patients with professional dysphonia

Key words: dysphonia, larynx, osteopathy, manual myofascial treatment

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Dysphonia most commonly affects people who use their voice professionally. Occupational voice disorders are accompanied by increased tension of the myofascial system of the laryngeal area what changes the position of the larynx and consequently disturbs the conditions of the vocal tract functioning. According to scientific literature, in order to carry out palpation examination of the anatomical structures indirectly and directly connected with the larynx a very good knowledge of anatomy and palpation experience is necessary, which falls within the competence of an osteopath. In this paper, we describe the published studies on the cooperation of osteopaths with phoniatician and voice therapists in the treatment of occupational dysphonia.

AIM OF THE STUDY: to assess the use of osteopathic procedures in the diagnosis and treatment of occupational dysphonia.

MATERIAL: 40 teachers with chronic diseases of the voice organ (38 women and 2 men) aged from 39 to 59 (mean age 48.25).

METHODS: Before and after the voice therapy the osteopathic examination according to Libermann's protocol was performed as well as phoniatic examination including laryngovideostroboscopy (LVSS), assessment of the maximum phonation time (MPT) and the Voice Handicap Index (VHI) score. The voice therapy, scheduled and supervised by the laryngologist-phoniatician and conducted by speech-language pathologist, was supplemented with osteopathic myofascial rehabilitation of the larynx, chest area. The chi-square McNemar test and non-parametric Wilcoxon matched pairs test were applied in the statistical assessment.

RESULTS: The applied interdisciplinary treatment including myofascial osteopathic and vocal therapy resulted in a statistically significant decrease in tenderness of muscles raising the larynx (cricothyroid ligament, sternocleidomastoid muscles, and pharyngeal constrictor muscles) and in lowering the tonus (geniohyoid muscles, pharyngeal constrictor muscles and sternocleidomastoid muscles). A significant improvement was also observed in the case of dysfunction of the cricothyroid joint examined during glissando and yawning, as well as in asymmetry of the thyrohyoid apparatus. Moreover, the therapy resulted in significantly better normalization of the head position and better control of the centre of gravity of the body.

Statistically significant post-therapy improvement was observed in the phoniatic examination, including VHI scores, MPT results and parameters of videostroboscopic examination.

CONCLUSIONS: The use of myofascial osteopathic therapy helps significantly improve the functions of the vocal tract in patients with occupational dysphonia.

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