

VOCAL FOLD MUCUS ACCUMULATION IN ASYMPTOMATIC YOUNG ADULT POP SINGERS, COMPARISON WITH HEALTHY CONTROLS

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Objectives:

A prospective study was undertaken to provide an initial assessment of the presence and features of mucus accumulation and the incidence of laryngeal abnormalities in asymptomatic pop singers and healthy controls.

Methods:

Volunteers asymptomatic pop singers and healthy controls 18-30 years of age were included in study. Participants underwent videostrobolaryngoscopic examination, objective voice analysis, hoarseness evaluation. The layer of mucus was rated dependent on the type, thickness, location. Participants also filled the VHI scale, self-assessment Visual Analogic Scale (VAS) of hoarseness.

Results:

43 pop singers and 27 controls were included. There were no difference between age and sex distribution of two groups. The mean hoarseness score of entire group on VAS evaluated by investigator (HSi) and self-assessed (HSsa) was 1.84 and 2.3 respectively. HSsa and HSi differed significantly in popsingers (2.3 and 1.8 $p=0.05$), while there was no difference in controls (1.2 and 1.1, $p=0.73$). A high incidence of posterior erythema, suggesting reflux was found in singers and controls 53% vs. 37%, vascular injection of vocal folds 37% and 14%; nodules 10% and 0%, sulcus vocalis 2.3% and 0%, Longitudinal gap 12.5% vs. 0%. However only frequency of vascular injection was found to be significantly different between groups ($p=0.031$). Apparent mucus by gender was 92.3% and 70.6% in women popsingers vs controls and 92.9% man singers, vs. 90.0% controls. Presence of mucus correlated positively with vascular dilatation ($p=0.014$, $r=0.312$), LFR ($p=0.001$, $r=0.46$); posterior gap ($p=0.015$, $r=0.296$). Participants with the presence of heavier mucus were scored as being more hoarse: HSi ($P=0.026$; $r=0.273$), correlation was even more significant with HSsa: $p=0.001$; $r=0.264$. There was no significant correlation between LFR and hoarseness scores.

Conclusions:

Pop singers have significantly more complaints than controls while objective findings between groups were comparable. Layer of mucus was present in majority of participants in both groups, however higher incidence of heavier mucus was associated in participants with other pathological findings suggesting of multifactorial mucus etiology. Participants with presence of heavier mucus had the highest points of hoarseness.