

# VOICE IN ADULT PATIENTS TREATED FOR UNILATERAL CLEFT LIP AND PALATE IN CHILDHOOD

Staffan Morén<sup>1</sup>, Per Åke Lindestad<sup>3</sup>, Mats Holmström<sup>3</sup>, Maria Mani<sup>2</sup>

1. Dep. of Otorhinolaryngology, Institution of Surgical Sciences, Uppsala University, Uppsala, Sweden

2. Dep. of Plastic Surgery, Institution of Surgical Sciences, Uppsala University, Uppsala, Sweden

3. Dep. of Otorhinolaryngology, Institution of Clinical Research, Karolinska Institute and Karolinska University Hospital, Stockholm, Sweden

Email address: staffan.moren@surgsci.uu.se

## Introduction

Voice abnormalities have been reported among the cleft lip and palate patients however it is still unclear whether voice characteristics are different from the non-cleft population. The aim of the study was to evaluate perceptual and acoustic voice characteristics in adults treated for unilateral cleft lip and palate (UCLP) and compare with a non-cleft control group.

## Methods

All consecutive patients with UCLP treated at Uppsala University Hospital, Sweden, between 1960 and 1987 were invited. A total of 73 patients (67% of 109) participated and mean follow-up time of 35 years. The palate surgery was performed in one or two stages. The non-cleft control group consisted of 63 volunteers. Two speech and language pathologists rated perceptual voice variables on blinded voice recordings on visual analogue scale (VAS) with Swedish Voice Evaluation Approach (SVEA). Acoustic analysis of voice was performed (F0, CPPS, LTAS) with PRAAT software.

## Results

Voice quality was rated good. Mean ratings for all perceptual voice variables on 100 mm VAS (0=no voice abnormality, 100= severe voice abnormality): patients: 5 mm, (SD ±2), controls: 6 mm, (SD ±2). There were no differences in perceptual voice variables between patients and controls except for "vocal fry" which was slightly higher among controls. There were no differences between patients and controls regarding the acoustic analysis. One-stage and two-stage palate closure did not affect any of the variables.

## Conclusion

Perceptual and acoustic voice characteristics of adult patients treated for UCLP did not differ from controls. Type of palate closing procedure did not seem to affect the results.