

Individuals who experience gender incongruence - a discrepancy between their gender identity and the sex assigned at birth and the bodily appearance - which causes distress, may receive the diagnosis Transsexualism. For individuals who have been assigned female sex at birth and experience gender incongruence, terms such as female-to-male transsexual persons, transsexual men, transmasculine, and trans men have been used (Azul, 2015). The incidence regarding trans men has increased from 0.16 to 0.42/100 000/year between 1972 and 2010 in Sweden (Dhejne et al., 2014). All individuals who reach the criteria for the diagnosis "Transsexualism", made by the psychiatric team at the Department of Psychiatry, Karolinska University Hospital, are referred to the Department of Speech and Language Pathology for voice assessment (Södersten et al., 2015). The aim with this study was to investigate effects of testosterone treatment regarding voice virilization, voice problems and voice satisfaction in trans men and to systematically assess the voice before start of testosterone treatment and regularly up to 2 years.

Fifty trans men, 18-64 years, fulfilled the inclusion criteria that voice recordings prior to start of the testosterone treatment were collected, and at least one recording during treatment. Voice data before treatment and after 3, 6, or 12 months was available from 49 participants, and for 28 participants also after 18 and/or 24 months of treatment. Digital audio recordings were carried out in a sound treated booth following a clinical standardized routine. The software programs Soundswell and Phog (Neovius Data och Signalsystem AB, Lidingö, Sweden) were used for recordings and analyses. Habitual voice was recorded during reading of a standard text and narrating to a series of pictures and saved as a speech range profile. A voice range profile was carried out to document the physiological range. Acoustic analyses of fundamental frequency (F0) and sound pressure level (SPL) were made. Endocrine data and answers from questionnaires concerning voice function and voice problems were collected from medical records.

Mean F0 and F0-mode of the habitual voice decreased significantly after 3 months of testosterone treatment, after 6 months and up to 12 months, when group data were congruent with reference data for males. Mean F0 was 125 Hz after 12 months with a large inter-individual variation. Satisfaction with voice increased significantly up to 6 months and correlated with lower F0 values. The SPL values did not change significantly. Twenty-four percent of the participants reported voice symptoms, such as vocal fatigue, vocal instability, and strained voice quality. These participants had received voice therapy. F0 values did not correlate with androgen levels.

The outcome from this study significantly increases our knowledge concerning voice virilization and voice function during testosterone treatment in trans men. The results show that most trans men develop a male voice and are satisfied. But, it is important to detect those trans men who need voice therapy, due to problems such as vocal instability, vocal fatigue and insufficient lowering of F0. Therefore, we recommend systematic voice assessments during testosterone treatment for this patient group.

References:

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