

# SURGICAL TREATMENT OF VOCAL FOLD NODULES

## RESULTS FROM A SWEDISH NATIONAL QUALITY REGISTER

Huss K<sup>1,2</sup>, Björck G<sup>3</sup>, Södersten M<sup>2,4</sup>

<sup>1</sup>Danderyd University Hospital, Speech and Language Pathology Clinic, SE-182 88, Stockholm, Sweden

<sup>2</sup>Karolinska Institutet, Department of Clinical Science, Intervention and Technology, Division of Speech and Language Pathology, SE-171 77 Stockholm, Sweden

<sup>3</sup>Karolinska University Hospital, Department of Otorhinolaryngology, SE-171 76 Stockholm, Sweden

<sup>4</sup>Karolinska University Hospital, Function Area Speech and Language Pathology, SE-171 76, Stockholm, Sweden  
E-mail: [karin.huss@sll.se](mailto:karin.huss@sll.se), [gunnar.bjorck@sll.se](mailto:gunnar.bjorck@sll.se), [maria.sodersten@ki.se](mailto:maria.sodersten@ki.se)

### Abstract

**Background:** In clinical practise, patients with Vocal Fold Nodules (VFN) are treated with voice therapy as the first choice of intervention. The goal is to diminish the hyperfunctional vocal behaviour to reduce the mechanical stress on the vocal folds. In some cases voice therapy does not result in satisfactory improvement, e.g., because of patients' lack of compliance, or if the vocal nodules are "old" and resistant to therapy. In those cases phono-surgical intervention may be needed. After surgery, different recommendations about voice rest and post-operative voice therapy are given in different regions in Sweden. In 2009, a National Quality Register was launched to collect information from patients who undergo surgery because of benign vocal fold lesions.

**Objectives:** To describe background factors, and to find out if patients with VFN had improved voices and reduced voice handicap four months after surgery.

**Design:** Retrospective register study

**Materials and methods:** Data from the total number of patients who had surgery because of VFN from 2009 to 2015 were extracted from the National Quality Register. Out of 84 patient registrations, 23 were excluded because of uncertainty if the VFN diagnosis was correct. Background data from 61 patients regarding gender, age and daily activities were analysed. Of those 61 patients, 44 had filled out a Swedish modified version of Voice Handicap Index 10 (VHI 10) before and 4 months after surgery, and a question about voice improvement or deterioration after surgery.

**Results and conclusions:** Patients who had phono-surgery for diagnosed VFN were to 95% women and their average age was 32 years. The most common daily activity was work in schools and preschools (18%), work places known to be very vocally demanding. A significant decrease in VHI 10 was found for each item and for the total sum, confirming less voice handicap. The patients also rated their voices to be significantly improved 4 months after surgery. However, because of methodological weaknesses the results should be interpreted carefully and further studies are needed, including longer follow up time.