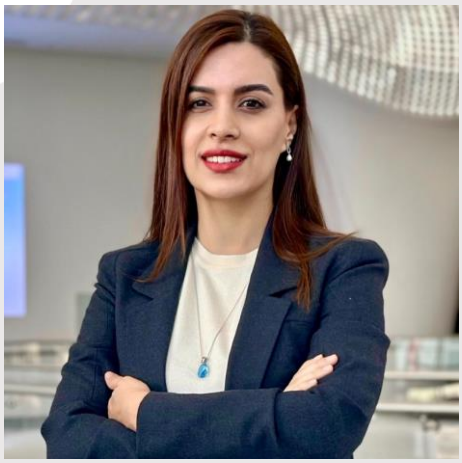
ANALYSIS OF THE CLINICAL CHARACTERISTICS AND QUALITY OF LIFE IMPACT OF BENIGN VOCAL FOLD LESIONS USING MULTIDIMENSIONAL SCALING METHOD



Nesibe Gül YÜKSEL ASLIER

ORCID: 0000-0003-0392-9280

BURSA ULUDAG UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCEINCES
BIOSTATISTICS DEPARTMENT
MSc PROGRAM

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- ✓ Acoustic analysis
- ✓ Multidimensional scaling
- ✓ Multivariate analysis
- ✓ Quality of life
- ✓ Vocal cords

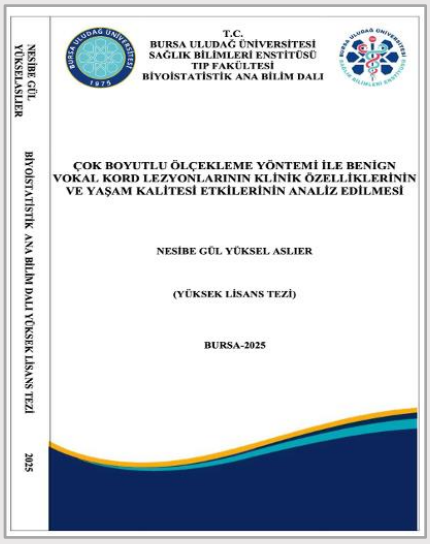
CONTACT

E-MAIL:
nesibe.gul.yuksel@gmail.com

THESIS SUPERVISOR

TELEPHONE:
(0224) 295 38 88

E-MAIL:
ercan@uludag.edu.tr



SUPERVISOR

Prof. Dr. İlker ERCAN
ORCID: 0000-0002-2382-290X
BURSA ULUDAG UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
BIOSTATISTICS DEPARTMENT
BURSA – TÜRKİYE

THESIS ABSTRACT

This study aimed to identify the multidimensional patterns of differentiation between clinical subgroups in individuals diagnosed with unilateral benign vocal cord lesions and paralysis by using the non-metric multidimensional scaling (MDS) method based on demographic, habitual variables, acoustic voice characteristics, and voice-related quality of life measures.

To analyze the complex structure of data composed of both ordinal, continuous and categorical variables, non-metric MDS was applied. Each model was evaluated based on Kruskal's stress value and R^2 variance explanation ratios, and the emerging clustering patterns on the graphic plane were interpreted in terms of between-group separation and within-group homogeneity.

Gender, acoustic voice parameters, and voice-related quality of life questionnaires were identified as strong discriminative variables in the assessment of benign vocal cord disorders.

The study resulted in a structural map of demographic, clinical, acoustic voice characteristics, and quality of life scores, as well as similarities and differences between lesions in patients with unilateral vocal cord lesions and vocal cord paralysis, using the MDS method. This allowed for a more objective visualization of the relationships between different lesion types.

ACADEMIC ACTIVITIES

1. Aslıer M, Yüksel Aslier NG, Ercan İ, Keskin E. "Clustering upper airway physicals, otitis media with effusion and auditory functions in children." Auris Nasus Larynx, 2022 49(2):195-201, SCI-Expanded.