

**LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH**

Judul Karya Ilmiah (Artikel) : Nasal Mucociliary Clearance in Smokers: A Systematic Review
 Jumlah Penulis : 3 Orang
 Status Pengusul : **Awal Prasetyo, Udadi Sadhana, Jethro Budima**
 Identitas Jurnal Ilmiah : a. Nama Jurnal : International Archives of Otorhinolaryngology
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Kategori Publikasi Jurnal Ilmiah : **Jurnal Ilmiah Internasional Bereputasi**/Internasional**
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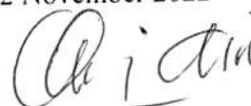
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Total = (100%)	40			39,5
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The Use of Exergames in the Neurorehabilitation of People with Parkinson Disease: The Impact on Daily Life

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Int Arch Otorhinolaryngol

Abstract

Introduction Parkinson disease (PD) is a progressive degeneration characterized by motor disorders, such as tremor, bradykinesia, stiffness and postural instability.

Objective To evaluate the independence, confidence and balance in the development of daily activities in patients with PD before and after rehabilitation.

Methods A descriptive, retrospective cross-sectional study was carried out with 16 patients (mean 57.6 ± 18.7 years), submitted to anamnesis, otolaryngological evaluation and vestibular assessment. The Vestibular Disorders Activities of Daily Living (VADL) and the Activities-Specific Balance Confidence (ABC) scales were applied before and after rehabilitation with virtual reality.

Results a) The *instrumental* subscale of the questionnaire showed statistically significant result ($p = 0.022$; 95% CI 1.21; 2.21) between the first and second assessments; b) The correlation between the questionnaires showed statistically significant result in the *ambulation* subscale ($p = 0.011$; 95% CI -0.85 ; -0.17) first and ($p = 0.002$, 95% CI -0.88 ; -0.31) second assessments, and the *functional* subscale was only verified in the second assessment ($p = 0.011$, 95% CI -0.85 ; -0.17); and c) The patients presented clinical improvement in the final assessment after rehabilitation with significant result for the *tightrope walk* ($p = 0.034$, 95% CI -12.5 ; -0.3) and *ski slalom* games ($p = 0.005$, 95% CI -34.8 ; -6.6).

Conclusions Our results showed that the VADL and ABC questionnaires, applied before and after rehabilitation, were important tools to measure the independence, confidence and balance while developing daily activities. The VADL and ABC questionnaires may effectively contribute to quantify the effect of the applied therapeutics and, consequently, its impact on the quality of life of patients with PD.

Keywords

- ▶ Parkinson disease
- ▶ postural balance
- ▶ quality of life
- ▶ rehabilitation
- ▶ virtual reality

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Adequate Number of Swallows for Pharyngeal Pressure Measurement of a Subject using High-resolution Manometry

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Abstract

Introduction The number of pressure measurements that need to be recorded using high-resolution manometry (HRM) for the accurate evaluation of pharyngeal function is not well established.

Objective The purpose of this study is to clarify the number of swallows required to obtain an accurate pharyngeal manometric profile of a person.

Methods Forty healthy adults performed a dry swallow and bolus swallows using 3-, 5-, or 10 ml of water and underwent measurements using the Starlet HRM system. Each subject underwent 10 swallows for each of the four bolus volume conditions.

Results The mean of up to seven measurements of maximum pre-swallow upper esophageal sphincter pressure with 10 ml of swallow was close to the mean of up to eight measurements in 95% of the subjects. Similarly, the rate of change of the average for the eighth and ninth measurements and the rate of change for the average of the ninth and tenth measurements were less than 5%. When the other parameters were similarly measured up to the sixth measurement, no major change in the average value was observed even if more measurements were taken.

Conclusion A minimum of six measurements are required, and seven swallows are sufficient for evaluating the pharyngeal manometric profile of a single person. This number of measurements can be a useful criterion when performing HRM measurements on individual subjects.

Keywords

- ▶ manometry methods
- ▶ pharynx physiology
- ▶ upper esophageal sphincter

Introduction

High-resolution manometry (HRM) has been widely used for the evaluation of esophageal function. In recent years, HRM has also been used for the analysis of pharyngeal function.¹ As HRM can quantitatively measure pharyngeal pressure and objectively evaluate swallowing function, it can be useful for evaluating pharyngeal function in patients with dysphagia.²⁻⁴ However, questions related to the number of times pressure measurements need to be repeated have arisen ever since traditional manometry has been used for this purpose. It has been accepted that there is considerable intrasubject variability among the measurements, and swallowing needs to be repeated at least 10 times during conventional assessment.⁵ In the Chicago classifica-

tion, 10 measurements of esophageal pressure using HRM were recommended.⁶ The Chicago classification may have taken the intrasubject variability into account, but the basis for the number of measurements was not stated. Regarding the intrasubject variability of swallowing movements, only a few studies have been performed.^{7,8}

Of the many studies that have analyzed pharyngeal pressure using HRM, some have used the mean value of two,⁹ three,^{1,10-13} or five measurements.¹⁴⁻¹⁸ Only a few studies^{19,20} used the average of 10 measurements, as recommended by the Chicago classification. Since the previous studies were able to find some tendency of intrapharyngeal pressure by targeting a large number of subjects, a smaller number of measurements for a subject may be permitted.

