



# Parkinson’s disease – can the occurrence of dysphagia be predicted?

*Natalia Madetko, Sławomir Budrewicz*  
Department of Neurology, Wrocław Medical University  
*E-mail: natalia.madetko@gmail.com*

## INTRODUCTION

One of the most underestimated manifestations of Parkinson’s disease is **oropharyngeal dysphagia**. The epidemiology of this phenomenon varies from 10 up to even 90% of patients. Precise assessment of swallowing impairment is crucial as the **leading cause of death in PD is aspiration pneumonia due to swallowing disorders**. The aim of the study was to objectively evaluate the prevalence and level of oropharyngeal dysphagia in PD patients and correlate this symptom with UPDRS - III and Munich Dysphagia Test – Parkinson’s Disease (MTD-PD) as a screening tool.

## MATERIALS AND METHODS

### POPULATION

11 ♀ 13 ♂

Age: 36-82 (65,3)  
Mean PD duration – 8,85 years

### MDS-UPDRS - III

Range: 9-64 points  
Mean score: 36 points

### MDT-PD

26 questions  
Filled out by patient

### FEES

Evaluated with the use of The Yale Pharyngeal Residue Severity Rating Scale

The endoscopic and clinical examination were conducted during patients’ ON-phase obtained by the most suitable oral pharmacotherapy. Patients were divided into 3 groups depending on the level of dysphagia (FEES)



Group 1



Group 2



Group 3

## RESULTS

**23 out of 24 patients** were diagnosed **with swallowing impairment** after endoscopic evaluation. No statistically significant correlation was found between FEES outcomes and UDPRS-III or MDT-PD results.

Dependent: UPDRS III	Kruskal-Wallis ANOVA; UPDRS III (PHD) Independent (grouping) variable: average Kruskal-Wallis test: H (2, N = 24) = 4.196409 p = 0.1527			Dependent: MDT-PD	P-value for multiple (double-sided) comparisons; MDT-PD (results) Independent variable (grouping): MAX DYS Kruskal-Wallis test: H (2, N = 24) = 4,080000 p = 0,13		
	N	rank	average rank		1 R:11,500	2 R:15,000	3 R:7,0000
1	8	97,5000	12,18750	1		0,834515	0,896093
2	7	60,0000	8,57143	2	0,834515		0,150131
3	9	142,5000	15,83333	3	0,896093	0,150131	

## CONCLUSIONS

Obtained results show lack of UPDRS – III suitability as a tool for dysphagia assessment. FEES is a ‘gold standard’ examination of parkinsonian dysphagia. The MDT-PD might be useful only in detection of more advanced levels of swallowing impairment, however more research in this field is required.