

THE DYMUS QUESTIONNAIRE FOR THE ASSESSMENT OF DYSPHAGIA IN PARKINSON'S DISEASE AND PARKINSONISM

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Dysphagia in parkinsonim

Swallowing problems are relevant, though often underestimated, in Parkinson's Disease (PD) and other parkinsonisms. A recent meta-analysis reported a pooled prevalence of subjective dysphagia of 35% in PD patients, but prevalence estimates in individual studies range from 16 to 55% (1). Dysphagia typically develops in advanced stages of PD, but it appears earlier in other parkinsonisms, where it can be the presenting feature (2). If untreated, dysphagia can lead to serious complications; one of these is aspiration pneumonia. Therefore detecting and diagnosing dysphagia also at an early stage is extremely important factor to limit its consequences.

A proper characterization and management of dysphagia in parkinsonism often requires accurate history findings, bedside evaluation of swallowing and relatively invasive instrumental evaluations, i.e. videofluoro-scropy, fiberoptic endoscopic evaluation (FEES) and EMG. A reliable, self-administered screening tool, such as a questionnaire, will prompt the possibility to screen those patients who are at risk of dysphagia and should therefore be subjected to further, more specific investigations.

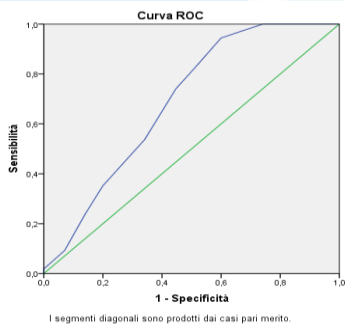
Testing the DYMUS questionnaire

The DYsphagia in MUltiple Sclerosis (DYMUS) questionnaire is a simple, 10-item questionnaire that has been validated for the screening of dysphagia in multiple sclerosis, where it proved to be an easy and reliable tool for the preliminary selection of patients requiring more specific instrumental analyses, and those suitable for aspiration prevention programmes (3).

Preliminary results

Evaluation of the performance of DYMUS against FEES in 135 subjects with PD and other parkinsonisms yielded promising results. More specifically DYMUS showed a good internal consistency (Cronbach alfa coefficient= 0.78). Furthermore, for a score > 2, the questionnaire showed a very high sensitivity (93%), although the specificity proved quite low (40%).

	Dysphagia present	Dysphagia absent	TOTAL
Score >2 (Positive test)	51	51	102
Score ≤2 (Negative test)	4	33	37
TOTAL	55	84	139



References:

1. Pfeiffer RF. Gastrointestinal dysfunction in Parkinson's disease. *Parkinsonism Relat Disord.* 2011;17:10–5
2. Noyce AJ, Silveira-Moriyama L, Gilpin P, Ling H, Howard R, Lees AJ. Severe dysphagia as a presentation of Parkinson's disease. *Mov Disord.* 2012;27:457–8
3. Bergamaschi R., Crivelli P., Rezzani C., Patti F., Solaro C., Rossi P., Restivo D., Maimone D., Romani A., Bastianello S., Tavazzi E., D'Amico E., Montomoli C., Cosi V. The DYMUS questionnaire for the assessment of dysphagia in multiple sclerosis. *Journal of the Neurological Sciences* 269 (2008) 49-53

Next steps

Based on these findings, we have devised a multicentre study in collaboration with the Italian Society for Neurorehabilitation for the evaluation of the reliability and generisability of DYMUS as a tool for screening the presence of swallowing disturbances in PD and other parkinsonisms.