CLINICAL INDEX OF DYSPHAGIA LIMIT IN PARKINSONS PATIENTS

Author : PHILO HAZEENA P
Department of Neurology, MADRAS MEDICAL COLLEGE AND GOVERNMENT GENERAL HOSPITAL

Abstract : BACKGROUND Parkinson’s disease is a progressive neurodegenerative disorder characterized by motor and non motor symptoms. The oropharyngeal dysfunction is common in parkinson’s disease. Pharyngeal dysmotility, prolongation of the duration of pharyngeal reflexes due to slowness of sequential muscle movements constitute abnormalities of pharyngeal phase.

AIM : To evaluate the oropharyngeal phase of swallowing in parkinson’s patients using a simple bedside clinical test “DYSPHAGIA LIMIT”

MATERIALS AND METHODS: 30 Subjects attending neurology/movement disorder OPD at RGGGH, Chennai were included in the study, of which 15 were patients diagnosed to have Parkinson’s disease and 15 were normal age matched controls. The individuals were instructed to swallow stepwise increase in the bolus volume of water as 5ml, 10ml respectively. The volume of fluid at which the division of bolus occurs is labeled the dysphagia limit. RESULTS 15 patients and 15 age sex matched normal control groups were included, of which 18 were males and 12 were females with a mean age group of 63.9. The mean UPDRS scoring was 24.6 and the disability scoring by Hoehn-Yahr staging was 1.6. The mean volume of fluid swallowed in a single bolus by Parkinson’s patients was 16.6ml and in the control group was 26.6ml and found to be statistically significant (p<0.001). The normal people have a higher volume of fluid consumed in single bolus than parkinson’s patients.

CONCLUSION: DYSPHAGIA LIMIT is a useful bedside clinical test to assess the oropharyngeal phase of swallowing. Keyword : Dysphagia limit, Parkinson disease "MsoNormal">

CLINICAL INDEX OF “DYSPHAGIA LIMIT” IN PARKINSON’S PATIENTS

INTRODUCTION: Parkinson’s disease is a progressive neurodegenerative disorder characterized by both motor and non motor symptoms. Three stages of deglutition, namely, oral, pharyngeal and oesophageal phases may be affected in patients with Parkinson’s disease (PD). The oropharyngeal dysfunction is common in Parkinson’s disease. Pharyngeal dysmotility, prolongation of the duration of pharyngeal reflexes due to slowness of sequential muscle movements constitute abnormalities of pharyngeal phase. Various motor disorders of Parkinson’s disease have considerable influence on oropharyngeal swallowing such as hypokinesia, reduced rate of spontaneous swallowing, and the slowness of segmented but coordinated sequential movements rather than any abnormalities in the central pattern generator of the bulbar centre is responsible for the dysphagia 2,3.

AIMS AND OBJECTIVE:
To evaluate the oropharyngeal phase of swallowing using a simple bedside clinical test “DYSPHAGIA LIMIT”

MATERIALS AND METHODS:
30 Subjects attending neurology/movement disorder OPD at RGGGH, Chennai were included in the study, of which 15 were patients diagnosed to have Parkinson’s disease and 15 were normal age matched controls.

METHODS:
The individuals were instructed to swallow water with a stepwise increase in the bolus volume of water in one swallow as 5ml, 10ml respectively. The volume of fluid at which the division of bolus occurs is labeled the dysphagia limit. The maximum swallowing volume was the maximum volume ingested in one swallow. Normal subjects can swallow a 20-30ml bolus of water in a single attempt but persons with dysphagia must divide the bolus into two or more parts to complete the swallow.

RESULTS:
30 Subjects were included in the study, of which 15 were patients diagnosed to have Parkinson’s disease and 15 were age & sex matched normal control groups. Among the 30 subjects included in the study 18 of them were males and 12 were females with a mean age group of 63.9 years. The mean UPDRS scoring was 24.6 and the disability scoring by Hoehn & Yahr staging was 1.6. The mean volume of fluid swallowed in a single bolus by Parkinson’s patients was 16.6ml and in the control group it was 26.6ml and on analyzing it was found to be statistically significant (p<0.001). The normal people had a higher volume of fluid consumed in single bolus than Parkinson’s patients.

VARIABLES MEAN

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
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<tr>
<td>Age group</td>
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<tr>
<td>Hoehn &amp; Yahr staging</td>
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<tr>
<td>UPDRS scoring</td>
<td>24.6</td>
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<tr>
<td>Fluid swallowed in single bolus</td>
<td>16.6</td>
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CONCLUSION:
The normal people have a higher volume (20-30ml) of fluid consumed in single bolus than in patients with Parkinson's disease. Hence, the patients with Parkinson's disease were advised double bolus technique of swallowing to prevent dysphagia. DYSPHAGIA LIMIT is a useful bedside clinical test to assess the oropharyngeal phase of swallowing.

REFERENCES: