Physiology of diffuse esophageal spasm (DES)--
when normal swallows are not normal

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BACKGROUND: Diffuse esophageal spasm (DES) is characterized on
manometry by a combination of simultaneous contractions and normal
swallows. The aim of this study was to examine the manometric characteristics
of simultaneous and 'normal' swallows in patients with DES patients compared
with normal controls. METHODS: Manometric studies from 69 patients with
DES and 20 controls were analysed to determine the proportion of normal,
hypertensive, ineffective and simultaneous contractions, and the velocity of
propagation along the esophagus, the duration and amplitude of contraction
and the relaxation characteristics (nadir and duration) of the lower esophageal
sphincter. KEY RESULTS: The propagation velocity was the only significant
difference between normal swallows and simultaneous contractions in DES
patients (middle third: 49.2 VS 101.2 mm s(-1), P <= 0.001 lower third: 44.1
VS 88.7 mm s(-1), P <= 0.001). 'Normal' swallows in patients with DES had a
greater velocity of propagation than those in age-matched control subjects
(middle third: 49.2 VS 37.0 mm s(-1), P = 0.02, lower third: 44.1 VS 23.3 mm
s(-1), P <= 0.001). CONCLUSIONS & INFERENCES: As expected, simultaneous
contractions of DES patients differ from 'normal' swallows in DES patients
mainly regarding the velocity of propagation of contraction but are similar in
amplitude, however 'normal' swallows of DES patients are also more rapidly
propagated along the esophagus than normal swallows of a control group
suggesting that all swallows in DES are affected to some degree by the same
process.

<table>
<thead>
<tr>
<th>type</th>
<th>journal paper/review (English)</th>
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</thead>
<tbody>
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<td>date of publishing</td>
<td>21-06-2010</td>
</tr>
<tr>
<td>journal title</td>
<td>Neurogastroenterol Motil (22/10)</td>
</tr>
<tr>
<td>ISSN electronic</td>
<td>1365-2982</td>
</tr>
<tr>
<td>pages</td>
<td>1056-e279</td>
</tr>
</tbody>
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