Reviewer's report

Title: Stuttered swallowing: electric stimulation of the right insula interferes with water swallowing. A case report.

Version: 2 Date: 8 November 2010

Reviewer: M Guenot

Reviewer's report:

The authors of this paper report the case of a 24 years-old man, who underwent depth electrodes recording because of a drug-resistant partial epilepsy linked to a right posterior insular ganglioglioma. They found that stimulations applied to the right postero-inferior insular cortex were associated with a swallowing impairment. They conclude that the right postero-inferior insular cortex is involved in the neural circuitry underlying the control of swallowing.

This paper is a short, clear, concise, and well-written case report. However, the conclusions that are drawn are difficult to ascertain, and its interest in its clinical field remains limited unless some corrections are made:

- Major compulsory revisions:

  This clinical case displays some swallowing difficulties (stuttered swallowing) when a postero-inferior insular stimulation is applied. To our mind, such a finding should be discussed under the light of an article, which is not mentioned in the reference section (the second one is under press):


  This paper reports the clinical data obtained in 50 patients, who underwent a total of 144 electrical stimulations of the insular cortex (125 clinical responses) by means of SEEG electrodes. 22% of the stimulations elicited viscerosensory responses, half of them consisted in unpleasant laryngo-pharyngeal constriction sensations. Moreover, in case of spontaneous seizures arising from the insular cortex itself, ictal signs often consisted in strong pharyngeal discomfort.

  The findings are similar in the second mentioned paper, to be published.

  This tends to indicate, as stated in the present submitted paper, that insular cortex, particularly in its posterior surface, is linked to many viscerosensitive or visceromotor functions, including swallowing. However, it is uncertain that the
findings exposed in the present article constitute a localizing indication of the
cortical areas of swallowing, rather than a simple pharyngo-laryngeal discomfort.
In conclusion, this interesting article can be accepted for publication as soon as
this point is more clearly explicated.

**Level of interest:** An article whose findings are important to those with closely
related research interests