Letters to the Editor

Post-stroke dysphagia and long-term outcome: baseline assessments of cortical dysfunction need to be clearer

SIR—Dysphagia has been shown to be associated with poor outcomes after stroke, especially in the first few months [1]. The recent article by Smithard et al. [2] aims to address possible effects on long-term outcome, suggesting that there may be a correlation with increased institutionalisation. This is an important finding because it serves to highlight further the clinical significance of dysphagia. However, some additional data from the study might help clarify the interpretation of the results.

There is an attempt to link the presence of dysphagia in this cohort with stroke severity. While stroke severity is indeed demonstrated by reduced conscious level, the Glasgow Coma Score has only limited applicability in stroke, especially in dominant hemisphere lesions. Similarly, it is known that cortical involvement is a marker of both stroke severity and outcome [3]. However, some of the data presented as being indicative of cortical involvement may not be valid in this study. While visual field inattention is evidence of cortical dysfunction, visual field defects and dysarthria are not always cortical signs. Though the methods section does consider dysphasia and visuospatial dysfunction in the multivariate analysis, no data on these well-defined cortical functions are actually presented. In addition, more general problems of dominant hemisphere dyspraxia could well apply to the bulbar musculature. Smithard et al. [4] have previously provided important data on the significance of stroke lateralisation on dysphagia, though this information is not reported from the register in this study.

Table 1 contains a few typographical errors with cells showing incomplete or inconsistent data. For example, the figures given for TACI and LACI ischaemic subtypes in Table 1 are reported differently within the text. One particular result that receives no specific comment is that participants who failed the swallow test were already significantly more dependent (Barthel score <15) prior to stroke than those who passed.

In assessing stroke severity, the presence of dysphagia is undoubtedly an important clinical feature. Bedside clinical testing as well as video fluoroscopic examination for silent aspiration is a critical part of specific care after stroke [5]. Identifying reliable prognostic markers is important for clinicians, patients and relatives alike. Prospective epidemiological studies, such as this, help to provide important observational data. However, care must be taken to select an appropriate number of clinical variables in proportion to the limitations of sample size. Furthermore, each variable should be related to components of the problem that most accurately reflect the clinical presentation.

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Reply

SIR—We are grateful to Dr Davis for his comments. We accept that hemianopia and dysarthria are not always markers of cortical involvement. The methods describe the factors investigated that might independently influence the ability to swallow. The percentage of patients with dysphagia differed between the two groups (19.3% if swallow test passed, versus 38.6% if swallow test failed), but this was not presented in the results as dysphagia was not a significant factor in any of the multivariable models.

A typographical error has been identified in Table 1; the line next to the ’Stroke subtype’ heading should be blank for each column (as with ’Records of’). As a consequence, from that point downwards, variable names and corresponding numbers are out of line leading to figures that are inconsistent with those given in the text.

We thank Dr Davis for drawing our attention to the positive association between dependence prior to stroke and dysphagia. However, in multivariable analyses pre-stroke dependence was not significantly associated with outcome at 3 months, 1 year or even 2 years.

A prospective study is proposed which is intended to answer many of the points raised in the study including admission to care in years 4 and 5 using both a clinical bedside assessment and a radiographic assessment of swallowing.

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