COMMENTARY

Oropharyngeal dysphagia in an elderly post-operative hip fracture population

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Abstract

Love et al (2013) claim new findings linking intervention for hip fracture with dysphagia. This commentary reflects on whether this represents novel data or simply reiterates previously recognised patterns, not necessarily specific to surgical hip-repair. Issues are addressed in the context of prevalence of dysphagia in community and care-home living older people; effects of operative procedures on swallowing; methods for screening for dysphagia; and methodological decisions made by Love et al. The role of dysphagia screening policies is briefly considered.

Keywords: dysphagia, assessment, postoperative, older people

It is second nature to be alert for dysphagia in association with stroke, diverse neurological conditions and head and neck cancers (even without surgical intervention) [1, 2]. Risk of dysphagia following thoracic, cervical and oral surgery or prolonged intubation is also clearly documented. An association between affective-cognitive impairment and swallowing difficulties is well attested. In this issue of Age and Ageing Love, Cornwell and Whitehouse [3] argue that we should extend our view beyond these more typical focuses to include routine screening for dysphagia post-operatively among older people undergoing hip fracture surgery. They base their call on finding evidence of post-operative oropharyngeal dysphagia in 61 (34%) of 181 consecutive patients presenting with hip fracture to a specialist orthogeriatric unit (26% new cases as 8% were documented prior to admission).

The rationale for such a recommendation is well-founded. In an aged population previously documented or newly recognised comorbidities that are risk factors for dysphagia are highly likely. Anaesthesia and even short-term intubation can be associated with transient dysphagia, and side effects of some medications may contribute to the likelihood of swallowing difficulties. Recognition of dysphagia is important in management of risks around dehydration, malnutrition and post-operative pneumonia. However, before proceeding to consider implications for clinical practice from Love et al.’s data it is worthwhile setting their methods and findings in a broader context.

Their 34% figure compares with 25–40% estimates of the presence of dysphagia from studies of independent community living elderly [4, 5] (though Holland [6] from a self-report postal questionnaire concluded 11%) and higher estimates (30–68%) among elders in residential care [7]—39% of Love et al.’s cohort were admitted from residential care facilities. This appears to leave the answer undecided whether Love et al. [3] have uncovered a new population for screening or have simply replicated findings from community and care home population studies. Several other aspects of their methodology also leave questions open regarding how specific their findings are to older people with hip fracture, or to post-operative status of swallowing and lessons for management of dysphagia.

In a more definitive examination of their question, control data would be prerequisite. This would enable findings to be set not just against extant community prevalence figures but against the assessment of matched admissions, preferably divided according to operated versus non-operated.

More reliable and explicit testing for pre-operative swallow status would also add value to a study like this. Reliance on previous medical notes, self or carer reports does not necessarily provide an accurate estimate [8]. Clearly, videofluoroscopic or fiberoptic assessment of swallowing was not practical in the current study, though in a prospective study of non-emergency hip orthopaedic admissions this should be feasible. Even without these assessments a more
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comprehensive bedside assessment with explicitly laid out procedures and operational criteria for diagnosis and severity could be utilised, both to more reliably identify cases and to serve as more rigorous baselines to chart possible deterioration and recovery post-operatively.

Which screening procedures to employ is not without debate, especially given issues around what precisely can be ascertained on the basis of bedside swallow tests and their general reliability [9, 10]. Clinical assessments can provide reliable measures of swallowing efficiency (e.g. millilitres per swallow for fluid; swallows required to clear a bolus of a given consistency) but have limitations from the point of view of specificity and sensitivity for recognising a swallowing disorder and detecting aspiration and penetration [10]. Similar question marks hang over reliability of recognising and quantifying signs such as wet voice, cough on swallow (on which Love et al. relied) and abnormal swallow sounds from cervical auscultation [11–13] which are common components of screening tests. Nevertheless, there are promising procedures that can successfully identify patients who can be safely advanced to an oral diet without subsequent identification of overt signs of aspiration, for example [14].

To calculate the health and cost benefits for any service contemplating implementation of a screening programme as advocated by Love et al., more detailed information on outcomes and size and impact of the problem is crucial. Love et al. offer some insight into the consequences of dysphagia in their patients (modified diets or nil by mouth), but without detail of how precisely these decisions were arrived at, how they differed from pre-operative status, or how long modification was necessary. Finer grading of outcomes would add invaluable data to such a study, as would availability of follow-up assessments. If the length of stay in Love et al.’s study (mean stay 16 days, SD 9) is representative of other sites, this should be readily achievable, even though they themselves omitted this.

Notwithstanding the limitations of their study Love et al. are to be thanked for again raising awareness of the possibility of dysphagic difficulties associated with surgical procedures. It remains to others to carry out a more definitive study to ascertain the true size and potential severity of any threat to wellbeing from dysphagia in this and related populations. Even if it transpires there is nothing specific to hip fractures or associated perioperative factors, the issue reminds us that unrecognised dysphagia is prevalent in community and care home living elders; it argues for introduction of screening on admission of elderly patients, especially if this were more selectively and economically targeted to those presenting with well attested risk indicators for dysphagia such as cognitive impairment, respiratory morbidities, known neurological history [15]. Routine screening policy in germane contexts has led to increased detection of dysphagia, with better outcomes in terms of mortality, morbidity, lengths of stay and drug costs [16, 17].

Key points

• Previously unrecognised swallowing difficulties exist in independently living and care home living older people.
• There are therefore arguments for routine screening of individuals on admission to hospital.
• To achieve the optimum cost–benefit balance of such screening programmes more data is required on the nature and degree of dysphagia in the general population and short- and long-term outcomes associated with reasons for hospital admission.
• The choice of best screening tool remains controversial.
• Nevertheless, screening programmes can lead to better health and economic outcomes.

Conflicts of interest

None declared.

References


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