Title: Dupuytren's contracture: a retrospective database analysis to assess clinical management and costs in England

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Author's response to reviews: see over
February 21, 2011

Dr Simon Yeung
Associate Editor, *BMC Musculoskeletal Disorders*
The Hong Kong Polytechnic University, Hong Kong

Re: MS #4686935964591675

Dear Dr. Yeung:

Thank you and the reviewers for the thoughtful comments on our research articles submitted to *BMC Musculoskeletal Disorders*. On behalf of my co-authors, included please find a revised version of the manuscript titled, “Dupuytren’s contracture: a retrospective database analysis to assess clinical management in England,” which has been provisionally accepted as a Research Article in *BMC Musculoskeletal Disorders*.

On the pages that follow, we have itemized the comments from Reviewers’ and provided our responses. As directed, the manuscript revisions have been entered in Track Changes mode.

We thank you in advance for your further consideration, and I look forward to hearing from you.

Sincerely,

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Reviewer 1

General
This is a slick analysis of an immense amount of data. The methods and data are well described and the writing is acceptable. There is a lot of detail to process and sometimes the paper seems to lose focus/get slightly lost in detail. There is some unnecessary duplication of information (see below). The aims are adhered to dutifully but maybe the data interpretation could be more ambitious eg can we reduce costs by encouraging/enforcing more day case procedures/do revision digital fasciectomies represent good value for money. I appreciate this may be beyond the scope of the paper but these sort of points could be raised. In the current resource-conscious NHS, this type of analysis is very relevant. I appreciate Pfizer’s involvement in this paper and interest in Xiaflex – I however do not think this poses a conflict of interest for this data.

Major Compulsory Revisions
1. The background section dwells excessively on studies reporting prevalence of Dupuytren’s disease. This is not the main focus of the article and therefore distracts the reader from the main thrust. It could be summarized in one or two succinct sentences. Prevalence is essentially static whereas trends in surgical practice are not.
   Author response: The paragraphs on prevalence have been truncated significantly or removed from the Background section altogether.

2. This is an epidemiological study tracking recent trends in surgical management of Dupuytren’s disease. The cost analysis is interesting. The headline figure of #41,576,141 does not seem very much given how prevalent Dupuytren’s disease is. But, the figure stands rather naked on its own – it would be nice to put it in some sort of context, to give the figure meaning e.g. as a proportion of all elective hand surgery or per hospital’s budget or even just the trend i.e. an estimated 2003 cost (at 2010-2011 prices) vs a 2007 estimated cost to see whether the increase in day-case procedures translated into a reduction in costs in 2007.
   Author response: The Discussion has been amended to include relevant figures from an audit of hand surgery activity in Derby and extrapolated to the general population in the United Kingdom (Burke et al, 2004) (p. 7)

3. There is no detail on the statistic tests used eg to compare procedure rates between different years and no p values.
   Author response: No inferential statistics were performed; only descriptive statistics are reported.

Minor Essential Revisions
1. The study analyses costs to the NHS i.e. anticipated cumulative HRG tariffs for one year, not actual costs of treatment which have not been assessed and which may be completely different to the HRG tariff. This should be made clear.
   Author response: The tariffs in each HRG are based on reference costs (ie, weighted average costs for all English hospitals); therefore, they are related to true costs. It is the authors’ collective opinion that all hospitals in the United Kingdom work on the basis that any differences between HRG tariffs and actual costs ultimately even out and that no NHS hospital
could accurately assess the costs associated with any particular operation. We have clarified this further in the text (p. 3).

2. Results paragraph 4. ‘Although the … orthopaedic surgeons performed a wider variety of procedures’. This is incorrect as plastic surgeons performed at least the same variety of procedures as orthopaedic surgeons. It is interesting that general surgeons are still performing fasciectomies.
Author response: This has been clarified in the text (p. 4).

3. Do the costs include eg physiotherapy/dressing clinic appointments etc. or are those associated costs coded elsewhere/buried in some other Department’s costs?
Author response: The HRG tariffs are related to the specific procedure performed in hospital as a day-case or inpatient admission. Costs associated with ancillary services such as follow-up visits and physiotherapy are not included. Thus, the costs presented in this manuscript are likely to be underestimates of the true total direct costs. This has been clarified in the text (pp. 3 and 5).

4. There is unnecessary duplication of information between the background and discussion section on the Maravic and Landais study.
Author response: Details regarding the Maravic and Landais study have been deleted from the Background section (p. 2).

5. I question how relevant a per-patient cost for each procedure is give that this is predetermined by the HRG/procedure code (with minimal according to associated co-morbidity).
Author response: Because the composition of each procedure varies in terms of multiple associated HRG codes across different frequencies of day-case inpatient admissions, using the mean per patient costs for each procedure provides the best estimate of this case mix. This has been clarified in the text (p. 3).

Discretionary Revisions

1. Results. The term ‘mean [±SD]’ is repeated excessively, especially as it is stated clearly in the methods.
Author response: Occurrences of this term have been removed from the Results section.

Reviewer 2

Minor essential revisions:
1. Please make clear what the initial aim of this study was. Was it only to review recent data on different treatment modalities or was it aimed to distinguish which form of treatment might be changed into other forms of therapy?
Author response: The initial aim of the study was to describe surgical treatment patterns and the associated costs for Dupuytren’s contracture in England. Until other forms of therapy are made available and used extensively, it is not possible to make cross-modal comparisons. This has been clarified in the Background section (p. 3).

2. Otherwise the paper is well written, the methods seem appropriate and well described and the data look sound. The manuscript adheres to the relevant standards for reporting and data
deposition and the discussion and conclusions is adequately balanced and sufficiently supported by the data.
Author response: Thank you for this comment.

3. I would like the authors to point out in the discussion that despite the big number analysed, they are describing a special population. Please comment a little more on the geographic and ethnic composition of the population investigated.
Author response: By definition, a census study is designed to be fully representative of the population of interest. Thus, these study data, collected from NHS-supported hospitals in England, are representative of the overall population in England. There are no systematic ethnic or geographic biases, as it is not a sample population. This has been clarified in the text (p. 7).

Section Editor's comment

As mentioned by Reviewers, could you please consider the possible bias due to the involvement of the industrial company in the study.
Author response: In accordance to and compliance with the ICMJE Uniform Requirements for Manuscripts Submitted to Biomedical Journals, all authors have provided complete details regarding any potential conflicts of interest and their individual contributions as authors in these respective sections of the manuscript (p. 8).