Reviewer's report

Title: The Rotation Scarf Akin Osteotomy for hallux valgus. A patient focussed 9 year follow up of 73 cases

Version: 1 Date: 9 July 2009

Reviewer: Stephen Finney

Reviewer's report:

1. General comments throughout text.
1.1. Discretionary Revision Avoid use of post –op please write in full.
1.2. Discretionary Revision Avoid starting sentence with numeral.

2. Comments related to Abstract

2.1. Background
2.1.1. This paper represents an important and very useful addition to the literature not least because it is examining the outcomes of a procedure that can be used on severe hallux valgus deformity where previously more proximal osteotomy might have been required. There is also an inferential quality to the data in respect of mild and moderate Hallux valgus correction using the same technique.
2.1.2. In the abstract it is stated that the study sought to address patient specific concerns. I think this has been achieved and has also provided important data on complications of the rotation scarf and akin. The outcome information presented in the paper will be of great help to both patient and clinician.
2.1.3. Minor Essential revision It is further stated in the abstract that the study sought to confirm ‘whether some of the known complications of the scarf procedure could be avoided by using the rotation scarf osteotomy’. Whilst the complications of the rotation scarf and akin procedure are well presented and the limitations of the scarf and other more proximal osteotomies are considered in the discussion, this question has not actually been answered in the paper. The difficulty in addressing this question is in part due to one of the main strengths of the study, i.e. its long term follow-up, since there is no similar long term follow-up of the scarf procedure and its known complications with which to compare. In the introduction section a further purpose of the study is stated i.e. ‘the following study sought to address some of the methodological shortcomings of previous hallux valgus surgery outcome studies’. This latter statement perhaps better summarises the study objective and could be expanded, to include the main study strengths of longer term follow-up and inclusion of patient focussed outcomes, and substituted into the abstract. Alternatively this issue should be discussed/acknowledged in a limitations section as should the potential for recruitment bias with only 50% inclusion.
2.2. Method:-

2.2.1. Minor Essential revision. Confirm dates of study correlate correctly with those presented in discussion.

2.3. Results and Discussion:-

2.3.1. Discretionary Revision It would assist readability if the results could be grouped i.e. pt concerns, footwear and activity limitations then complications and finish with satisfaction issues.

2.4. Conclusion

2.4.1. The conclusion confirms that this operation satisfies patient concerns in that it permits return to normal footwear and activities. The conclusion does not contain any reference second question posed i.e. does it avoid known complications of the scarf osteotomy? (see comments above).

3. Comments related to Introduction

3.1.1. Discretionary Revision Try to avoid starting sentence with also.

3.1.2. Minor Essential revision Final paragraph 100 pts ensure numbers correlate with abstract.

3.1.3. Minor Essential revision Final paragraph. The information gathered by this review can only be used inferentially in respect of the procedure being reviewed. So information on risks and complications can only be specific to rotation scarf and akin correction of hallux valgus rather than specific to hallux valgus surgery in general.

4. Comments related to Patients and methods.

4.1. Minor Essential revision Confirm date ranges with discussion section 1996 or 1997

4.2. Minor Essential revision Confirm pt numbers with introduction 101 or 100.

4.3. Discretionary Revision. Re Goniometer measurement of post-operative 1st MTPJ angle. The reference to technique is quite old and potentially difficult to access. This would limit ability of another researcher to repeat this technique and I would recommend including a brief description of technique.

4.4. Discretionary Revision Last line ‘all other patients were encouraged to return to lace up or running shoes at 2 weeks post op’ Consider instead ‘with the exception of the patient who underwent adjunctive 2nd MCJ fusion all patients were encouraged to return to running shoes at 2 weeks post operatively’.

5. Comments related to Surgical technique

5.1. Discretionary Revision ‘an osteotomy guide was used to make horizontal cut’ -here I suggest add in mention of a saw.

5.2. Discretionary Revision 2nd Paragraph 8th line at description of cuts add a reference to look at Fig 1.

5.3. Discretionary Revision Keep description of post operative footwear advice
consistent, you state lace up or running shoes in patients and methods but trainers under surgical technique.

6. Results

6.1. Minor Essential revision Throughout this section there is variation as to how the results are reported and for me this detracted from the ease of understanding the results. In particular the use of case, feet patients and group was difficult to follow. I would suggest this section is rewritten to resolve this problem e.g.:-

6.1.1. 'The patients were happy with the cosmetic appearance in 90% of cases (66 feet)' Instead consider 'Ninety percent of cases (66 feet) were happy with the cosmetic appearance'.

6.1.2. 1st paragraph. You state ‘88% of group (44 patients)’ then you state ‘2 patients, 4% patients’. I would suggest keeping the descriptive order and use of parenthesis consistent (applies to whole section).

6.1.3. 2nd paragraph % in brackets used for larger numbers but omitted for smaller. If using % at all then use throughout the paragraph.

6.2. Discretionary Revision keep paragraphs in logical order and grouped i.e. patient focused outcome then known complications. In this section 1st MTPJ stiffness and 1st MTPJ pain are separated by activity restrictions and metatarsalgia.

7. Discussion

7.1. Minor Essential revision Check and confirm date range of study starts 1996 or 1997.

7.2. Discretionary Revision Another new term introduced here, study subjects, adding to those already used group patients etc. again be consistent with terms.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

'I declare that I have no competing interests'