

## Ankle Arthritis: Ethical Issues for the Orthopaedic Surgeon

Bilal Jama and Anand Pillai\*

Manchester Foot and Ankle Clinic, 93-107, Lancefield Steet, Glasgow, UK

Whilst the teaching of ethics has improved markedly over the past few decades, more work is needed to ensure that ethics is taught and assessed well [1]. The fear amongst our patients is that the ethical behaviour of medical staff can be sub optimal [2]. There is a deep desire to improve and Wenger et al. have demonstrated that knowledge of medical ethics can be enhanced amongst orthopaedic surgery residents with the implementation of an appropriate curriculum. However, it is unknown if this leads to a change in behaviour [3].

An understanding of medical ethics is fundamental to all branches of orthopaedics including the relatively new subspecialty of foot and ankle surgery. The essential principles that all clinicians should understand are those of beneficence, autonomy, non-maleficence and justice [4]. These principles are relevant in the management of ankle arthritis which is a common clinical problem that can be treated conservatively or surgically.

It can be treated non-surgically with analgesia, activity modification or hyaluronic acid viscosupplementation which has been used "off-label" for symptom control. This is an attractive proposition as it seems logical that all synovial joints troubled by degeneration should benefit from viscosupplementation. However, the concern has been that this breaches the principle of beneficence; that this intervention may not benefit our patients but may rather cause pain and hence breach the principle of non-maleficence. Troublingly, DeGroot et al. suggest just this; their recent randomised, double blinded and placebo controlled study demonstrated no difference between hyaluronic acid viscosupplementation and an injection of saline [5].

The ethical considerations of surgical intervention in ankle arthritis become even more challenging. The commonly performed surgeries include tibiotalar fusion or total ankle arthroplasty. Whilst non-maleficence remains an important principle, one must accept that it is impossible to always avoid harm as complications inevitably do develop following surgery. Open tibiotalar fusion has historically been associated with poor outcomes with a non union rate of up to 35% [6]; recent results are more encouraging [7]. However, newer techniques in the form of arthroscopic ankle fusion are associated with comparable fusion rates but with less evidence of post operative infection, faster union and a shorter number of days in hospital [8]. The principle of non-maleficence would suggest that we therefore aim to only fuse ankles arthroscopically as it is associated with less infection. While the principle of beneficence states that we should pursue arthroscopic surgery as it associated with faster union rates and hence less time in plaster which will allow our patients to return to normal function earlier. The principle of justice dictates that we intervene arthroscopically as our patients will be in hospital for a shorter period of time which will allow for us to admit other patients faster for their pain relieving surgery.

The role of total ankle arthroplasty is still currently being established and the relative indications for it are evolving. This presents its own ethical problems; how to ensure that we perform this surgery in the correct patient group? Ankle arthroplasty surgery is technically demanding particularly in the context of deformity and is associated with a learning curve. This is further compounded by the low volume of such surgery being performed. Amongst knee arthroplasty surgeons,

it is accepted that high volume units have less complications than low volume units. Such evidence does not exist in the ankle arthroplasty population but by extrapolating data from our knee colleagues it seems pertinent to ask if it is ethical to dilute experience rather than concentrating it in a few units where patients may go onto have better outcomes. Finally, to ensure that we meet the four basic principles of medical ethics we must robustly evaluate the numerous ankle replacements commercially available to ensure that we only implant those that will provide good pain relief and survivorship. We must ensure that we meet the demands of our patients and that above all we do no harm. By doing harm to the patient, we may condemn them to revision surgery of the ankle. This will also harm other patients who subsequently have to wait longer for the stretched resources of our straitened economic times.

A problem such as ankle arthritis which one may assume does not pose any real ethical challenges is, in fact, littered with them. We must rise to the challenge of meeting them. In part, we shall meet this challenge by ensuring that we perform good quality research to identify the best possible interventions out of the multitude available to us. However, we must also have a full and detailed with our patients to ensure that they understand the limits of our knowledge otherwise we shall not be respecting their autonomy.

### References

1. Mattick K, Blich J (2006) Teaching and assessing medical ethics: Where are we now? *J Med Ethics* 32: 181-185.
2. Mohamed AM, Ghanem MA, Kassem A (2012) Knowledge, perceptions and practices towards medical ethics among physician residents of University of Alexandria hospitals, Egypt. *East Mediterr Health J* 18: 935-945.
3. Wenger NS, Liu H, Lieberman JR (1998) Teaching medical ethics to orthopaedic surgery residents. *J Bone Joint Surg Am* 80: 1125-1131.
4. Beauchamp TL, Childress JF (2001) Principles of biomedical ethics. (5th edn), Oxford University Press, New York City, USA.
5. DeGroot H 3rd, Uzunishvili S, Weir R, Al-Omari A, Gomes B (2012) Intra-articular injection of hyaluronic acid is not superior to saline solution injection for ankle arthritis: a randomized, double-blind, placebo-controlled study. *J Bone Joint Surg Am* 94: 2-8.
6. Hagen RJ (1986) Ankle arthrodesis. Problems and pitfalls. *Clin Orthop Relat Res* 202: 152-162.
7. Colman AB, Pomeroy GC (2007) Transfibular ankle arthrodesis with rigid internal fixation: An assessment of outcome. *Foot Ankle Int* 28: 303-307.
8. Nielsen KK, Linde F, Jensen NC (2008) The outcome of arthroscopic and open surgery ankle arthrodesis: A comparative retrospective study on 107 patients. *Foot Ankle Surg* 14: 153-157.

\*Corresponding author: Anand Pillai, MBBS, MS (Orthopaedics), MRCS Ed, FRCS (T and O), FICS, Consultant Trauma and Orthopaedic Surgeon, Manchester Foot and Ankle Clinic, Glasgow, UK, E-mail: [Aorthopod@yahoo.co.uk](mailto:Aorthopod@yahoo.co.uk)

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