Montgomery and Wrist Fractures: what should we tell the patient?

David Warwick

In 2015, the UK Supreme Court made a ruling based on an obstetric case that will have implications, quite profound implications, on our clinical practice as orthopaedic surgeons. The ruling is already starting to open new avenues for medical negligence claims, which may incur extra liabilities for a service already strained by the litigation burden.

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The reason is that, whereas prior to Montgomery vs Lanarkshire it was a medico-legal defence to use a treatment that would be regarded as reasonable and responsible by one's peers (the Bolam test), now there must be evidence that the options for treatment have been discussed with the patient and consented prior to treatment.

The Montgomery Judgement: what it says

The Montgomery vs Lanarkshire Health Board Supreme Court Ruling (2015 UKSC 11) states: *"A doctor has a duty to take reasonable care to ensure that the patient is aware of any material risk involved in any recommended treatment and of any reasonable alternative or variant treatments."*

Furthermore

"It requires that the test of materiality is whether in the circumstances of the particular case a reasonable person in the patient's position would be likely to attach significance to it."

In fact, the law has now merely enshrined what we have been advised by the GMC for many years:

- *Work in partnership with patients;*
- *Listen to and respond to, their concerns and preferences;*
- *Give patients the information they want or need in a way they can understand;*
- *Respect patients' rights to reach decisions with you about their treatment and care.*

More recently, similar requirements have appeared in the Royal College of Surgeon's Good Surgical Practice (2014):

- *Seeking consent for surgical intervention is not merely the signing of a form;*
- *You should discuss information about the options for treatment, including non-operative care and no treatment;*
- *The likelihood of success;*
- *The risks inherent in the procedure, however small the possibility of their occurrence, side effects and complications. The consequences of non-operative alternatives should be explained.*

Distal Radius Fractures - who should give consent?

Distal radius fractures (DRFs) are common and are managed by people with a range of training and experience, from Nurse Practitioners through Orthopaedic Registrars to Hand Surgery Consultants. So, different health carers may need to provide different levels of consent. In the Emergency Department the patient needs to be advised of the suitable options for first aid (pain relief, manipulation under anaesthetic if displaced, the options for follow-up and the possibility of surgery). In the fracture clinic the

patient needs to be aware of the advantages and disadvantages of operative or non-operative measures and the risks and benefits of the various surgical options should be discussed. In the surgical ward, signed consent for the patient's well-informed choice is finally procured.

The options for treatment, and thus the options to be presented to the patient, may vary as time passes; for example when an undisplaced fracture becomes displaced.

What should we tell the patient to involve them in making their own decision?

An experienced surgeon might advise that, notwithstanding all the options available, a particular DRF is best served by a certain treatment; some cases need just a removable splint, others might need complex surgery with double plating and bone grafts. Yet sometimes the patient's choice may seem irrational - an undisplaced stable fracture could be fixed if the patient insists; a substantially displaced intra-articular fracture probably should be fixed yet some patients may refuse. Informed consent must be sufficient that the patient understands how their best interests are served.

If an "irrational" decision is in fact because the patient has misunderstood the benefits and material risks presented to them, then inadequate explanation might have been the cause, for which inadequacy the Doctor could be liable.

The assertions of those who are more enthusiastic in encouraging surgical fixation should be tempered by proper sharing with the patient of some facts.

- *The risk of arthritis is low with modestly* displaced fractures: the orthopaedic mantra that joint line displacement leads to arthritis has not been established reliably for the DRF[1,2,3,4,5,6]

- *Anatomy does not correlate particularly well with outcome:* studies have consistently shown at best a weak correlation[6] between anatomy and outcome, and no particular advantage for surgery over non-operative treatment[8] over the age of 60

- *Surgical fixation is not without risk.* Volar locking plate fixation and k-wires have a material complication rate of at least 8% [9,10]. The risk is probably to some extent dependent on experience and talent of the surgeon and DRF fixation may be delegated to more junior orthopaedic surgeons. Consent should, ultimately, include details of the surgeon's talent and experience

- *Sometimes we just know what treatment works best:* for some fracture configurations, no trial is needed since there is no logical comparator. Instead, we rely on the surgeon's art - an undisplaced stable fracture is treated with a cast, a displaced Barton's fracture is treated with a volar plate, a highly comminuted impacted fracture is treated with a rigid distraction device. Experienced surgeons each have their own preferences, which give a better outcome in their hands. The surgeon should be mindful that they need honest insight into their own craftwork when consenting

- *Sometimes we just do not know what treatment works best:* for a "standard" DRF where the patient duly consents for surgery, the ideal technique is unknown. There is no consistent evidence for one treatment over another; the recent randomised, level 1 DRAFFT study[11] suggested that a distal radius fracture fares as well with percutaneous wires as a volar locking plate. However, the cases were selected and the generalisability is not clear[12]; meta-analysis of other studies shows a trend in favour of plating[13,14]. Early return to work with uncomplicated volar plating may render a significant socio-economic benefit regardless of any medium term equivalence with k-wires; a self-employed patient would expect this advantage to be explained as part of the consent process. The fact that the DRAFFT study was approved by an Ethics Committee, and that patients consented to be included, demonstrates equipoise for surgeons and patients; this might be a reasonable defence against any retrospective medico-legal contention that a patient would have chosen one over the other in the event of a complication[15].

Consent for a fracture that may or may not benefit from fixation

Some fractures are so displaced initially, or due to their inherent instability displace so rapidly and markedly after an initial closed reduction in the Emergency Room, that failure to tilt the consent process towards surgical stabilisation would expose the patient to a predictable risk of a poor result. However, there is a paucity of information upon which to base informed consent as to the best procedure and the real benefit of anatomical reduction. Additionally, we do not really

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know, for many fractures, what amount of angulation or shortening can be accepted, or should prompt surgery. We do know that, in fact, most patients with modestly displaced extra-articular DRFs do well regardless of the final anatomical position, especially in older and lower demand patients. Conservative treatment can fare as well as surgical treatment[16]. We also know that volar plate fixation is expensive and not without risk. Finally, we also know that distal radial osteotomy for an extra-articular fracture is a reliable operation with good results when performed[17] before secondary changes develop in the mid-carpus and the distal radio-ulnar joint.

So, what do we do with a mild-to-modestly displaced DRF, with say 3mm of shortening and 20 degrees of dorsal tilt at the two week x-ray? Do we accept or do we operate? If the fracture is left and then goes on to a symptomatic malunion they will be dissatisfied and may even litigate. But supposing a volar plate is used and they then have a tendon rupture or infection, they might be equally dissatisfied and litigate, once again. Informed consent, involving the patient and documenting the matters discussed and the conclusion reached, is essential. But the Montgomery judgement actually helps us to deal with this dilemma, framing the discussion with the patient something along the following lines:

If we operate now for this mildly displaced fracture, there is about an 8% chance of a significant complication which would probably make you regret the decision to undergo surgery. But, if we avoid surgery now, and wait and see instead, there is only about a 20% chance of actually needing an operation. That operation will be almost the same as if we performed surgery now. Surgery would involve a cut at the front of the wrist and the insertion of a metal plate. You may also need a small incision in the edge of the hip for a bone graft or perhaps some artificial material will be inserted into the gap. This may take a few weeks longer to recover.

This consent model can mollify our unease in the grey areas we face in trauma management, sharing our uncertainties with the patient, explicitly in the consent process. A medical negligence claim may emerge when a DRF is not operated on initially and then an osteotomy is eventually performed. If better consent had been undertaken and documented, the claim may well never have been viable. Fortunately, the causal losses tend to be relatively small when the claim is settled, because the outcome of osteotomy is usually good and the patient would have had an operation in any event.

Conclusion

We orthopaedic surgeons dealing with distal radius fractures have to be meticulous in the consenting process with a full and balanced explanation of options and risks and outcomes. This has always been so professionally, but now, in the post-Montgomery era, the medico-legal perspective is the same. Nevertheless with real uncertainty about the advantages and disadvantages of any treatment despite years of research, the information upon which to base informed consent is itself uncertain. In the consent process we must clearly share and document the uncertainty. ■

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References

References can be found online at *www.boa.ac.uk/publications/JTO* or by scanning the QR Code.