



**Figure 2** Left leg placed in the Mayo bag for washout. Suction catheter placed inside the bag, with ongoing pulse lavage.

**A useful technique of using anterior cruciate ligament reconstruction jig for preparing patellar tunnel in surgical repair of extensor tendon ruptures**

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**BACKGROUND**

Quadriceps and patellar tendon injuries are common and require surgical intervention for best outcomes.<sup>1,2</sup> The current method of treatment involves whip suturing the tendons and passing them through the tunnel in the patella and tying the knots at the opposite end (Figure 1).<sup>3</sup> However, making three equally spaced and parallel tunnels in the patella is often a daunting task.

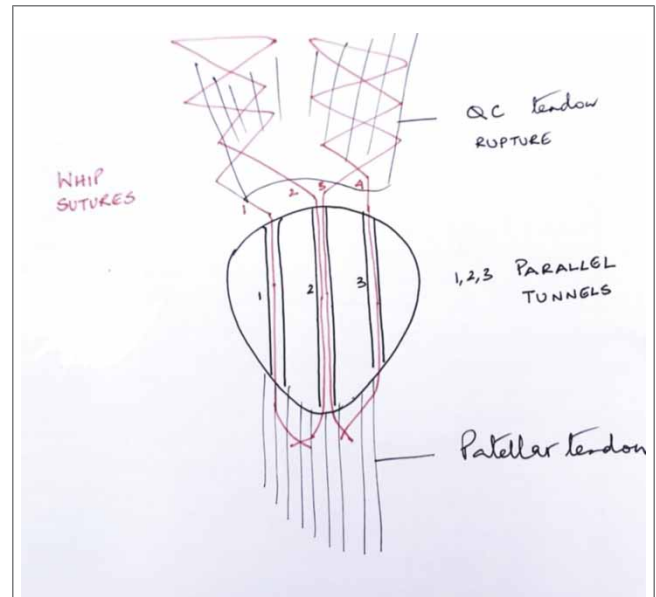
**TECHNIQUE**

We advocate the use of an anterior cruciate ligament (ACL) reconstruction jig (Figure 2) and a long wire to make such a tunnel in the bone. The angled bullets engage the cortex consistently and securely and the locking mechanism keeps the jig in place (Figure 3), hence guiding the entry and exit point. The tunnel is made with the help of a long wire and subsequently, sutures are passed through the tunnels with the help of a suture passer and are tied at the opposite end.

**DISCUSSION**

This method can reproduce predictable tunnels in the patella for the surgical treatment of tendon injuries around the knee joint. This

identifies the correct entry and exit point of these tunnels as intended by the surgeon without much guesswork. The holes are parallel and evenly spaced out. The depth of the tunnel could also be easily managed with this jig and this is easily available in most centres performing orthopaedic surgery.



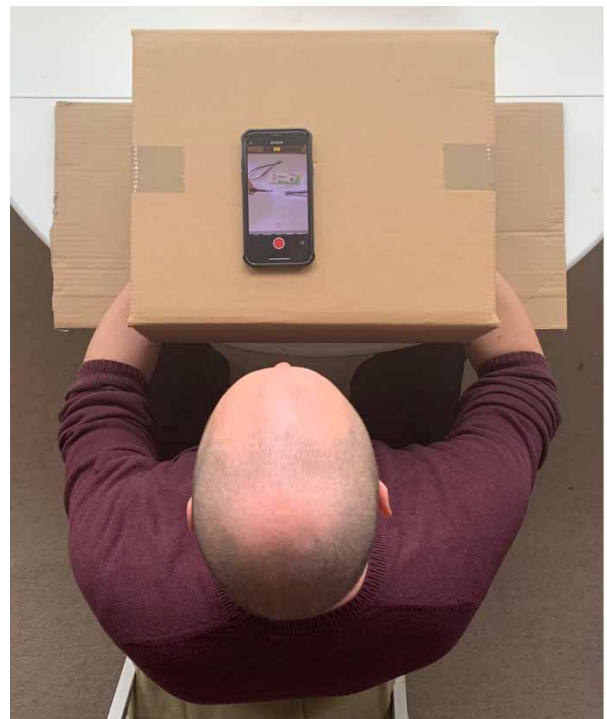
**Figure 1** Picture illustrating the arrangement of passing whip sutures through the patella



**Figure 2** Anterior cruciate ligament (ACL) reconstruction jig. Image reproduced from [www.nebulasurgical.com](http://www.nebulasurgical.com)



**Figure 3** Diagrammatic representation showing the use of the ACL jig to guide placement of tunnels in the patella. Image reproduced from [www.sosbones.com](http://www.sosbones.com).



**Figure 1** An example of a microsurgical skill station set up with a cardboard box and mobile phone

## References

1. Lee D, Stinner D, Mir H. *Quadriceps and patellar tendon ruptures*. *J Knee Surg* 2013; **26**: 301–308.
2. Pengas IP, Assiotis A, Khan W, Spalding T. *Adult native knee extensor mechanism ruptures*. *Injury* 2016; **47**: 2065–2070.
3. Iboung T, Simons TA. *Etiology, Diagnosis and Treatment of Tendinous Knee Extensor Mechanism Injuries*. *Scand J Surg* 2016; **105**: 67–72.

## Thinking outside the box with microsurgery

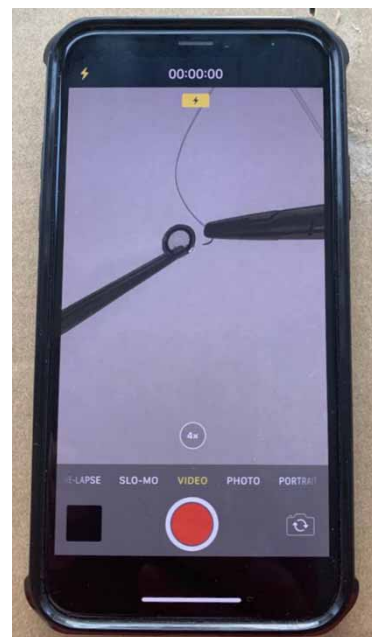
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Training opportunities in microsurgery can be limited and variable despite proficiency being pivotal for several specialties. Microscopes are expensive and often not readily available outside of theatre. Microsurgical skill stations can be conveniently set up in a workspace by cutting a small hole in a cardboard box to accommodate the camera on the back of a mobile phone (Figure 1). Utilising the camera's adjustable zoom function facilitates the use of fine motor skills, microsurgical instrument handling and the rehearsal of basic microsurgical tasks, all at various magnifications (Figure 2). Recording your practice allows reflection and an opportunity to gain feedback.



**Figure 2** Surgeon's field of view through a mobile phone at an example of x4.0 magnification