To Operate or not to Operate? That is the question

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Anterior cruciate ligament (ACL) injuries amongst children worry us more than other age groups.

An ACL rupture can limit a child's present physical activity and contentment. But it can also threaten his or her adulthood, with an increased risk of further injury, leading to meniscal tears and early osteoarthritis. (Whittaker JL, 2015)¹

The key question, therefore, when we are faced with a child's ACL rupture, is ‘To Operate or Not To Operate?’. There are conflicting opinions regarding the best treatment approach. Some argue for early ACL reconstruction, and for all children. Others urge rehabilitation (non-surgical management), with an option for late ACL reconstruction when instability remains. It has been argued that children who begin with conservative management, but later resorted to ACL reconstruction, have by then accumulated more meniscal and chondral injuries compared with those who immediately had ACL reconstruction.²³⁴ This consideration is the background for early surgery decisions.

Certainly, a well-performed ACL reconstruction can restore knee stability. However, it has been shown that a majority (62%) of adolescents develop IKDC grade B or higher osteoarthritis within 15 years of ACL reconstruction.⁵ This is disturbing and makes one wonder whether it is the initial damage or the surgery itself that induces the osteoarthritis? The surgery certainly doesn’t prevent it. And there are other risks, such as growth disturbance, stiffness and secondary rupture.

It is clear that non-surgical treatment can be both viable and safe for skeletally-immature patients (Moksnes H, 2013)⁶, and ‘high-quality rehabilitation’ can, by itself, dynamically stabilise the knee. That is, we can achieve what is required by not operating (Ardern C et al).⁷

Compounding the problem is that decision-making—the process of deciding what to do and when—is especially precarious for children. We are not dealing with mature minds, who are capable of assessing the evidence, balancing the pros and cons, and reaching the ‘correct’ decision by themselves, and for themselves. They have not yet discovered that they are mortal and can be irretrievably damaged. Nor can we deal exclusively with their parents or team managers—giving them our SWOT analysis and just leaving it up to them. If the child is a gifted athlete, with a profitable career in view—for himself or for others—we are dealing with human ambition and its often vicarious ambition. Thus we clinicians have an especial duty here, perhaps a more traditional duty, one that we had in the era in which patient care was supply-driven, in which we as clinicians just announced our decisions, as if graven on stone, and treated all our patients as if they were children. We may need to decide what is correct for an injured child, and diplomatically insist on our decision, if needs be against some opposition. To simply walk away from this—and hide behind the fashionable idea of ‘consensus-decisions’—may even be a failure on our part.

All this, all these problems, led the International Olympic Committee (IOC) to organise a consensus meeting and then publish its results across several journals simultaneously.

The reader can find useful sections on prevention, diagnostics, surgical techniques, ethics and shared decision-making. There was likely not much disagreement among the members of the committee on these points: consensus but also common sense. But then to the main question: should we operate or should we not? And just how should we deal with a paediatric ACL rupture?

According to the IOC’s Consensus Statement, paediatric ACL reconstruction is recommended in the following situations: when a child has ‘additional repairable injuries that require surgery’, such as a bucket handle meniscal lesion; when a child has already completed ‘high-quality rehabilitation’, but still has recurrent, symptomatic ‘giving-way’; or when a child has ‘unacceptable participation-restrictions’, namely when his activity is distorted by the need to avoid ‘giving-way’.

I suspect there may have been conflict within the IOC Consensus Committee about these conclusions. There is a preference among some for immediate surgery, and for cultural reasons: Faced with the threat of litigation, and for not having done enough, there is an inevitable tendency to do everything and to do it right away, while those who have not yet been exposed to patient-driven care still feel themselves able to ‘wait and see’.

What does this mean for daily practice? Based on the key indications as given by the consensus committee, it must be concluded that the pendulum has swung towards conservative treatment, at least for treating acute and isolated ACL ruptures in children. This is an important message, which is worth spreading to the worldwide orthopaedic community: Do not operate on an acute paediatric ACL rupture, unless it is combined with an associated lesion that does demand surgery!

Obviously, the decision should be agreed between clinician and child-patient and his or her protectors and based on a realistic assessment of risks and benefits and goals. As I have already suggested, this may really be the crux of the matter, protecting the child against the very modern pressures of sports professionalism.

There is another matter here. We all accept that authors should not submit a manuscript to more than one journal simultaneously. The principle is quite simple: that you can only ride in one taxi at a time. If two (or more) journals have simultaneously published an identical manuscript to more than one journal...
Editorial

-just as ordinary people-as well as increase their sales and their impact factors.

In the commercial world, the same principle applies, hence the international system of patents. Despite the suspicion that no patent can really protect an important new technology or the people who developed it—that it only needs a slight tweak or two, and any patent can be side-stepped—we still rely on some such system. However, we admire those who don’t patent their inventions, but make them available to all. In fact, we think them rather wonderful. Tim Berners-Lee did not patent the World Wide Web (https://www.techdirt.com/articles/20110811/10245715476/what-if-tim-berners-lee-had-patented-web.shtml), and we thank him from our hearts. How would the world now look had he patented the WWW?! Elon Musk shared his knowledge of electrical vehicle technology (https://www.tesla.com/nl_NL/blog/all-our-patent-are-belong-you?redirect=no), stating that ‘all our patents belong to everybody’, and we admire him for it because this will certainly speedup the development of environmental-friendly transportation.

In publishing, to avoid similar conflicts, the International Committee of Medical Journal Editors (ICMJE) has established guidelines for publishing (http://www.icmje.org/recommendations/browse/publishing-and-editorial-issues/overlapping-publications.html#two), which include rules for duplicate, overlapping, and secondary publications. They do allow joint publishing however, when the journal editors agree that joint publication of an article would be ‘in the best interests of public health’.

The IOC has chosen to invoke this rule and disseminate their Consensus Statement to the widest possible audience by publishing simultaneously in four major journals: the British Journal of Sports Medicine, the Orthopaedic Journal of Sports Medicine, ESSKA’s Knee Surgery Sports Traumatology Arthroscopy and our very own JISAKOS.

We are proud to be among this select group.

‘To share or not to share’? This IOC Consensus is a good example of a non-patented publication. And we are happy to spread the message.

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Editor-in-Chief JISAKOS

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