

Struggling with the peer-review system

By Dr J

One of the modern pet hates of clinician researchers (particularly those who have had this title thrust upon them by the demands of the ACSP training program rather than their own choosing) is the peer-review process of scientific journals. A study which might literally take months to years to perform, and fully weeks to months to write up, can be dismissed by a journal editor and reviewers seemingly within minutes (once they have finally got around to reviewing your paper). In recent years, the bar seems to be set higher and higher, with the only redeeming feature being that the journal process for rejection is quicker than it once was, thanks to the elimination of sending manuscripts through the mail.

The answer to the question “Why do journal editors reject so many papers?” can be phrased simply as “Because they can”, or can be more graphically compared to a similar question whose answer seems obvious, such as, “Why do good-looking thin young girls reject so many guys who ask them out on dates?”

What really annoys potential authors to distraction though, is that the goal posts don't seem to be in the same place for each paper that gets reviewed. When you read the reviews of your rejected paper, it seems fair enough when comments get made like “This wasn't truly a randomised double-blind placebo-controlled study with large numbers and long follow-up, which would have been preferable for assessing this form of management”. This is until you open up the next edition of the journal that rejected you and see that the opening article is from a surgeon from Butcrack University Medical Centre who reviewed 18

patients after surgery (from the ones who bothered to present back to his office) and found that they all had an “excellent” result. Somewhere in the conclusion you could swear that you read a sentence which said “The most pleasing aspect of this study is that insurance companies will continue to pay huge rebates for me to perform this operation in the future, ensuring that I will be able to buy a lodge at the Butcrack ski resort to go with the beach house I already own”.

Yes, the peer-review process is most definitely a lottery, and fortunately I am in the position where I can afford to laugh about it. It upsets me that for ACSP registrars, getting a rejection from a prestigious journal has an equal effect on the candidate as failing an exam. If the peer-review process was a lot more objective, it might be a fair method of assessment, but it's even more subjective than, say, a viva exam! I contend that there are many excellent papers that have struggled to make it into peer review and some shockers that you can find using Medline. Just about my favourite of all time (with some very famous names amongst the authors) is “The meniscus as a cruciate ligament substitute. Collins HR, Hughston JC, Dehaven KE, Bergfeld JA, Evarts CM. *J Sports Med.* 1974 Jan-Feb;2(1):11-21” which describes “successfully” ripping ACL-deficient patients' menisci out and using them to attempt to reconstruct the ACL.

Just as Michael Jordan once said “you miss 100% of the shots that you never take”, the only thing worse than not having a paper published in a PubMed-listed journal is not writing it in the first place. I am often asked how I manage to get so many papers published while still having an active

clinical practice and looking after a professional football team. One of the key answers is that I don't waste time in the peer-review process. I'm quite happy to submit a paper to a journal and, with very few exceptions, if it doesn't get accepted first go (with minor revisions) then I shoot it off to *Sport Health*, the *New Zealand Journal of Sports Medicine*, *Sportlink* or even just put it on my website at www.injuryupdate.com.au.

The beauty of the Internet is that the cost of on-line publication has become very cheap (even if print publication is more expensive than ever). I think eventually that even scientists will cotton on to the fact that a Google search is just as important (not relevant but important) as a PubMed search on a topic of scientific interest. The most obvious example of this is when you have a topic where a medical decision must be made. Too often all the scientific literature tells you is that nothing is proven beyond reasonable doubt, yet in the real world you still need to make a decision. With a lot of sifting through chaff, there are still some pearls out there on the internet that you can't find in a PubMed search.

Fortunately I write enough stuff that does get accepted in PubMed-listed journals so that my legitimacy as a researcher is not in question. The way the major journals are heading makes me think I will have less and less time in the future to be able to devote to playing their (often unnecessary) games. Probably heading this list is ethics committees. I have been through an ethics committee a handful of times and I would just about rather spend my next holiday in India drinking putrid river water.

I agree that ethics committees need to exist, because some researchers have to kill animals or make humans take Vioxx in order to get their study completed and there needs to be a check on whether these studies are justified. However, a good proportion of studies are intrinsically ethical and don't need a politically-correct committee to pick them to pieces. They particularly don't need 25 extra pages to be filled in and for informed consent forms to be translated into tribal Aboriginal before a study will get passed. I don't think that a collective review of patient data (without revealing the names of patients) should require a signed consent before it can be done, for example, but an ethics committee is sure to disagree. If an ethics committee was asked how many people lived in Australia, they would surely take 12 months to come up with the answer of "6 million people, not counting those who chose not to participate in the study".

The rest of this article will describe a paper which follows using aprotinin injections in tendinopathy. Put me in jail for longer than Rodney Adler if you like, but I didn't have this study approved by an ethics committee. It may amaze those of you in ivory towers, but those patients who participated were happy to be asked for follow-up information without needing to sign a consent form. I hope that many readers find this paper interesting. Some of you might – others might find more interesting the reviewer comments, posted below, from a PubMed-listed journal which rejected this paper.

I wasn't surprised with the comments. They are all pretty consistent. I think it is likely that if I submitted this paper elsewhere that it may also be rejected with similar comments. I wanted to write this paper up because I noticed that a significant number of my patients I was treating with aprotinin were getting allergic reactions. This is pretty important information.

Some of the reviewers have said that I should have just written up these cases and basically made the paper "a

case series of allergic reactions caused by aprotinin injections". However, the whole point of giving an aprotinin injection is not to cause an allergic reaction but to try to improve results in tendinopathy. I fully appreciate that a case series, even with largish numbers, showing that patients are pretty happy with their injection outcomes is only level 3-4 evidence of efficacy. However, in a world where level 1 and 2 evidence is so rare, it reassures me that patients are mainly satisfied with the treatment I am giving them after follow-up.

Yes, read this paper with a grain of salt. The good clinical results may be due to placebo effect, the natural history of the condition or simple prolotherapy which could have been achieved with an injection of glucose instead. At least there is some encouragement to do more RCTs.

The funny thing is that patients don't really give a rat's proverbial about RCTs. At the time I was treating dozens of patients for Achilles tendinopathy with aprotinin in a non-randomised fashion, we (Richie Brown and I) were trying to cast a wide net to recruit patients into an RCT. The patients all wanted to know "How are the other patients doing who have had this treatment?" and, when the answer was "Generally well", they mainly wanted to just get the aprotinin injection rather than be enrolled in a study where they have a 50% chance of getting the injection. Being someone who does follow the tendinopathy literature fairly closely, of course I offered them other treatments as well, many of which they had previously tried and had failed.

In terms of hard-core science, the take-home message of the following paper is that aprotinin has the potential to cause allergic reactions even with local injections. However, it seems ridiculous to throw out the results of subjective follow-up of patients just because the methodology is not as good as it could have been. Therefore I would much rather publish this paper as is in Sport Health than put a chainsaw through

it and send it back in to the big time journals.

It is also worthy of note that some excellent quality papers describing efficacy of aprotinin injections in tendinopathy have been published by the Capasso group, but these don't get considered in Cochrane reviews etc, because they have appeared in non PubMed-listed journals.

Anyway, next time you collect an interesting clinical case series of three patients with a rare condition, or collate two year's worth of pre-season fitness parameters from a sports team, why not send it in to Sport Health or give it to me to post (with acknowledgement) on injuryupdate.com.au? I agree it is research of a quality that will probably bounce from the majors, but so-called low level research is better than none at all. After all, it's what we base at least half of our clinical practice on!

See page 24: The risks of aprotinin injections

Reviewer comments regarding the aprotinin paper from peer-review:

Reviewer 1 Comments

This work needs so much correction/revision and conceptual change that I think it should be rejected. The paper purports to study the risks of aprotinin injections for chronic tendinopathy. It begins to but wanders off into discussing its efficacy. We don't use this drug in this country for tendinopathy (usually it's used for blood conservation/hemostasis in cardiac or joint replacement or spine surgery). The part on efficacy is fraught with numerous

inconsistencies with numbers, no consistent method of usage, the results are jumbled and almost anecdotal in reporting. The risk part starts with known data (RE: Beierlein, W. Ann Thorac Surg 2005) and tries to compare with that. The level of evidence here is very low. The technique of application is not discussed (peri-tendinous or intra-tendinous). The risks or side effects are poorly described (7 cases of systemic allergic reaction occurred but not described as to specifics). Adequate follow-up is not defined. Multiple conditions were treated in the same patient and the numbers in results were not consistent. There was a 20% no response. In short, I think too many obstacles to overcome.

- 1) make this a study of risks only
- 2) the numbers reported must "add up" to be consistent
- 3) telephone contacts are not adequate.

- 4) need definitions eg. protocol, systemic allergy, what is “substantially improved”?
- 5) what was technique of administration?
- 6) a control (another med or saline) would be helpful for comparison. e.g. Capasso et al., Sports, Exercise, and Injury article.

Reviewer 2 Comments

The authors report on a diverse group of patients who undergo aprotinin injection for treatment of chronic tendinopathy. Although this is a fairly large number of consecutive patients, and the response rate is reasonable at 80%, there are some major flaws in this study. The patient population is quite diverse including a special subpopulation of professional athletes. Additionally the injury being studied is not well defined. The authors used the term “tendinopathy” and do not distinguish between tendonitis, tendinosis and peritendinitis. They do not discuss how the diagnosis is formalized or whether radiologic modalities such as ultrasound or MRI utilized. There are also multiple different injury sites involved. There is no clear discussion of the indications for a first injection or subsequent injections. And finally the outcome criteria are very weak. As this is an uncontrolled study, I think using a purely subjective patient derived questionnaire as a sole form of outcome data is quite weak. While the information on the incidents of allergic reaction does appear to be valuable information, it has already reported in the literature. Based on this weak study design and the fact that this is not new information, I do not think that this manuscript is suitable for

publication in this journal.

Specific Comments for the Authors:

The authors state that this is a case review and follow up of a 121 consecutive patients. I think it would be more accurate to say that this is a retrospective case review and mention that follow up was obtained through mailed questionnaires.

The authors should mention whether the institutional review board at their hospital approved this study.

It would be helpful if the authors would clarify the inclusion criteria for their study. They say that there are 155 different tendinopathy cases. Does this mean tendinitis? Tendinosis? Peritendinitis? How was the diagnosis made? Is this purely a clinical diagnosis or were MRIs or ultrasounds performed in some cases?

I’m curious whether the authors noticed any correlation between the anatomic location of injection and results.

What were the indications for aprotinin injection? Was this offered to all patients with tendinopathy, or only if they failed to improve with rehabilitation? Also what were the indications for a second injection?

The authors state that 8 cases were followed up for less than 3 months. Clearly this is not an acceptable length of follow up to determine “success”.

The authors state that “in general, there was good progress of the patients’ conditions”. I don’t think it’s legitimate to make this

statement based strictly on patients’ objective assessments.

Reviewer 3 Comments

According to the title of this paper, its main purpose is to report the risks of aprotinin injections for chronic tendinopathy. The specific risk that the authors cite is the risk of allergic reaction. However, much of the manuscript is devoted to a moderately expansive description of the patient population and the efficacy of the treatment. The work was not really designed to report on efficacy and therefore this aspect of the paper is very problematic.

It appears that the authors did not really plan to be doing a study at all, but were using aprotinin extensively and noticed allergic reactions, so decided to report them. As a treatment study, the paper is very spotty in the available information, and does not have the strength of methodology to comment on the efficacy of the treatment. Follow-up is subjective, it does not seem that concomitant treatments such as PT were controlled, and there is no control group. In order to report on the possible efficacy of this off-label use of a drug, the authors should perform a RCT.

The allergic reactions could be separated out and submitted as a series of case reports, with the number of cases treated during the time period being delineated so that the incidence of these complications could be estimated. This might serve as a warning to those who might wish to use this treatment on their own.’

Notice of Annual General Meeting and Call for Nominations

Notice is hereby given that the Annual General Meeting of Sports Medicine Australia will be held at the Melbourne Convention Centre, Corner Flinders and Spencer Streets, Melbourne, at 4.00PM Sunday 16 October 2005.

Agenda

- 1. Opening
- 2. Roll Call, Apologies and Proxies
- 3. President’s Welcome
- 4. Minutes of the Previous AGM
- 5. Reports
- 6. Consideration of financial statements & audit report
- 7. Board Election (if required)
- 8. Appointment & remuneration of auditors
- 9. Special Business
- 10. Close

Call for Nominations – Board of Directors

Members are asked to provide nominations for positions on the Board of Directors of Sports Medicine Australia.

Executive Members:

President, Vice President, Financial Director

National Directors

NSW, South Australia

Discipline Director

I of.....

hereby nominate

for the position of

on the National Board of Directors of Sports Medicine Australia

Proposer’s Signature..... Date.....

Second (full name)

Second’s signature..... Date.....

Nominations should reach: Sports Medicine Australia, PO Box 237, Dickson ACT 2602 or fax to (02) 6230 5908

BY NO LATER THAN 5.00 PM (EST) ON MONDAY 26 SEPTEMBER 2005

Notes to the validity of nominations to the Board of Directors of SMA