Reviewer’s report

Title: A comparison of vas occlusion techniques: cautery more effective than ligation and excision with fascial interposition

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Reviewer: Timothy B Hargreave

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I do not doubt that findings in this paper but what worries me is the 4.9% failure rate as defined by large numbers of sperm. In my own case series of 2343 vasectomies using fascial interposition the reoperation rate was 5 or 0.2% which is lower than the rate they are finding with cautery and indeed if I had a 5% failure rate I would very quickly cease to have patients referred to me for vasectomy in my private practice!

I think therefore this paper is demonstrating that to do fascial interposition properly is rather technique dependant, whereas to use a cauter is much more applicable generally and even doctors who are not expert surgeons will get good results. Thus in World terms cautery may be a good option. However the downside which is not addressed in this paper is reversibility. This may not be of concern in some developing countries but in the UK there are large numbers of men seeking reversal and if long lengths of vas have been cauterised reversal becomes much more difficult or even impossible. In the study here reported the cautery technique was 5mm of vas on each side and provided this is adhered to then reversibility should still be an option but in my experience I have found 3 or more centimetres of vas has been cauterised and reversal has been very difficult indeed. These authors conclude that there should now be a randomised controlled trial and I would support this and suggest that the technique of cautery be standardised by designing a cautery probe that can be inserted no more than 6mm into the vas. Also in addition to semen analysis they should report how many from each group had re-operation or were advised to have re-operation. The ideal vasectomy should be 100% effective, immediately effective, have no complications, and be 100% reversible and in any future randomised study data should be collected to address all of these features. Once efficacy approaches 100% then reversibility becomes more of an issue.

It is curious to know why cautery should result in quicker clearance than division and fascial interposition – do these authors have any explanation? Looking at the graphs the separation seems to happen rather early and then the curves are parallel. It is hard to understand why sperm clearance rates should be different if a continuous sheet of fascia is between the ends of the vas unless the technique was faulty which brings me back to my first point that fascial interposition vasectomy is fiddly and technique dependent.

I recommend that this paper should be published but the authors may first like to consider some of the above points in their discussion.

The paper is well written and address an important topic