

Letter to the Editor

Fertility following spinal cord injury: a systematic review

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We read this article by DeForge *et al*¹ with interest and congratulate the eminent authors for an extensive in-depth systematic review about fertility in spinal cord injury (SCI).

It is generally accepted that ejaculatory dysfunction and poor sperm quality are the two main reasons for the high infertility rates in SCI men. In recent times, the advancement in semen retrieval techniques has improved this outcome marginally. Vibroejaculation and electroejaculation are the two most commonly used techniques. Although authors have quoted 86% ejaculation response rates from the pooled data of studies using both the methods, the high rates appear to be due to high success rates with electroejaculation. In our study² using vibroejaculation, the ejaculation rates were 50% despite having used the optimum parameters and technique as described by Sonsken *et al*.³ This, however, matches well with the success rate of 60% quoted in a meta-analysis of 10 studies by Beckerman *et al*.⁴ It is possible that some of our failures could be due to retrograde ejaculation. We did not check for this phenomenon as it was felt that the semen analysis of the ejaculate mixed with urine would be inaccurate measure of sperm quality.

Authors, based on the studies by Ohl *et al*⁵ and Siosteen *et al*,⁶ state that too frequent ejaculations (ie once a week) cause the sperm quality to fall off. Siosteen⁶ performed repeated PVS in 16 men for 4–6 months in an uncontrolled study and noted an increase in volume, fructose level and acid phosphatase levels suggesting an improved function of seminal vesicles and prostate. However, he did not observe any significant improvement in motility or morphology. Conversely, Brindley⁷ has shown a progressive increase in sperm motility with repeated electro-ejaculation and Francois *et al*⁸ helped to increase the motility of a man with repeated electro-ejaculations from 0 to 30%. We have reported data from a randomised controlled study, which clearly shows a statistically significant improvement in morphology ($P=0.02$) and forward progression

($P=0.03$) in semen samples of spinally injured men repeatedly vibroejaculating once a week for 12 weeks.² Unfortunately, the translation of this improved semen quality into improved fertility still remains to be seen.

A scientific paper on this subject describing the further analysis of this study is accepted for publication in *Spinal Cord* in July 2005.

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