

Paraplegia

Letters to the Editor

Dear Sir,

In *Paraplegia* 1991 29:1, 43-47 Halstead and Seager report their interesting experiences with the effect of rectal electrostimulation (to produce ejaculation) on spasticity. The effect of electrostimulation on spasticity has been documented by many workers and Halstead and Seager refer to some. The authors contribute the whole effect on spasticity to the rectal electrostimulation alone, stating: 'There was no relation of the effect of RPES on spasticity with -ejaculatory success'.

This is surprising when I take into consideration the following:

1. Para- and tetraplegic men with ejaculatory ability will invariably report that spontaneous ejaculation will relieve their spasticity.
2. In my series of about 50 SCI, anejaculatory men nearly all report reduced or abolished spasticity after *vibro*-ejaculation. The effect on spasticity lasts from 1 hour to 48 hours, which is fairly comparable with the results reported by Halstead and Seager. No effect is observed when vibration fails to produce ejaculation.

My question to the authors is: Could you show us your detailed results relating the effect on spasticity to the success of ejaculation? The practical stimulation alone that exerts the effect on spasticity?

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Reply from Drs Halstead and Seager

The letter by Dr Stein raises a number of interesting questions concerning the effect of both electroejaculation and vibrostimulation on spasticity. We agree there probably is some anti-spasticity effect simply from ejaculation by itself. Exactly how much is difficult to quantify. In addition, there is probably some contribution from muscle fatigue as the result of the temporary but intense spasticity provoked by the stimulation. We believe, however, that the majority of the anti-spasticity effect we are observing is produced directly by the electrical stimulation.

Support for this belief is based on the following evidence: (1) the documented effects described in human literature of reducing spasticity by electrical stimulation (ES) of peripheral nerves and epidural ES; (2) reports in the animal literature of suppressing reflex activities in rats by ES of the vagina and the rectum;¹ (3) we have treated a number of SCI women for spasticity using the same technique described for SCI men. The relief has been essentially identical to that observed in SCI men but does not, as far as we are aware, produce a comparable physiologic response to ejaculation in men and (4) we are presently doing a prospective study with blinded evaluators of the effects of rectal probe electrostimulation on spasticity and trying to identify the smallest amount of current which provides maximum relief. The SCI men in the study only rarely ejaculate as a result of the relatively mild stimulation, and, in the absence of ejaculation, experience good to excellent relief of their spasms depending on the amount of current used.

The experience reported by Dr Stein with vibratory stimulation and the effects of ejaculation on spasticity is interesting. It would appear that while both vibrostimulation and ES can produce ejaculation, they have very different effects on spinally mediated mechanisms that control spasticity.

Reference

KOMISARUK BR, LARSSON K Suppression of spinal and a cranial nerve reflex by vaginal or rectal probing in rats. *Brain Res* 1971;35:231-235.

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