

Oral presentation

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## Neurological bypass for sensory innervation of the penis in patients with spina bifida

P Dik\*, ML Overgoor, M Kon and TPVM de Jong

Address: Dept. Pediatric Urology UMC Utrecht, PO box 85090, KE.04.140.5, 3508 AB Utrecht, The Netherlands

Email: P Dik\* - p.dik@umcutrecht.nl

\* Corresponding author

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### Background

Most male patients with spina bifida eventually have normal sexual desires. During puberty they begin to realize that they can achieve erection and sexual intercourse but without any sensation in the penis. We hypothesized that restored sensation in the penis would greatly contribute to their quality of life and sexual health. In this prospective study we investigated the outcome of a new operative neurological bypass procedure in patients with spina bifida.

### Materials and methods

In 15 patients, 12–34 years old, with lumbosacral spinal lesions, the sensory ilioinguinal nerve (L1) was cut distal in the groin and joined by microneurorrhaphy to the divided ipsilateral dorsal nerve of the penis (S2-4) at the base of the penis. All patients underwent preoperative and postoperative neurological and psychological evaluations.

### Results

By 15 months postoperatively 12 patients had achieved excellent sensation on the operated side of the glans penis. 6 patients experienced a "groin feeling" in the penis. However 6 patients reported a true "glans feeling". They were all positive about the results and the penis had become more integrated into the body image. The sensations were not (yet) erotic in 7/12 patients. Most patients report amelioration of their sexual relation/sexual activity. No adverse effects were seen.

### Conclusion

The newly designed neurological bypass procedure in patients with spina bifida resulted in excellent sensibility in the glans penis. The new sensation appeared to contribute to the quality of the patient sexuality and sexual functioning as well as to the feeling of being a more normal and complete individual who is more conscious of the penis. This new operation might become standard treatment in patients with spina bifida in the future.