

Postherniotomy dysejaculation: successful treatment with mesh removal and nerve transection

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Abstract Dysejaculation following groin hernia repair can occur in about 1–2% of patients, resulting in impairment of sexual function. We report a case of chronic postherniotomy dysejaculation treated with transection of the ilioinguinal and iliohypogastric nerves and decompression of vas deferens that was embedded and twisted in shrunken mesh and scar tissue. At three months follow-up, there was reduced overall pain and no dysejaculation, and quantitative sensory testing showed reversal of sensory abnormalities, except for sensory loss, compared with preoperative values.

Keywords Dysejaculation · Hernia · Chronic pain

Introduction

Postherniotomy dysejaculation was first described by Bendavid [1] and subsequent large epidemiological studies have shown that chronic pain-related sexual dysfunction may occur in approximately 2% of young males after groin hernia repair [2] and where dysejaculation represents a special complaint [2]. The neurophysiological and psychophysical characteristics of postherniotomy dysejaculation have recently been described: the ejaculatory pain is reported to be located at the superficial inguinal ring, described as electrical jabs of pain or a throbbing pain fol-

lowed by tenderness to the area lasting for minutes to hours [3]. Psychosexual interviews have not revealed underlying psychopathology to explain dysejaculation and they conclude that the pain syndrome is of somatic origin [3]. Similarly, the risk of developing chronic pain after trauma to the vas deferens (i.e., vasectomy) is well described [4], and the mesh used for hernia repair has also been shown to affect the vas deferens due to an inflammatory reaction, occasionally resulting in compression and ensuing infertility [5,6].

Treatment of postherniotomy dysejaculation has not been settled and the effect of surgical nerve transection and/or mesh removal for unspecified postherniotomy pain may be promising [7] but is unclear due to insufficient methodology in most studies [8].

Case

A 42-year-old man had been operated for an inguinal hernia in 1998 without mesh, and again in 2002 with a Lichtenstein heavyweight (polypropylene) mesh repair due to recurrence. A few months after the second operation, dysejaculation occurred and intensified. In addition, there were episodes of spontaneous pain radiating to the thigh, and pain when standing, sitting or exercising. The patient reported a severe pain-related impairment of sexual function. Detailed quantitative sensory testing [3] showed cutaneous hypoalgesia and -esthesia and significantly reduced pressure pain threshold over the superficial inguinal ring (pressure hyperalgesia) (Table 1). An MR scan showed compression of the spermatic cord with dilated vessels, and the mesh was irregular with signs of surrounding inflammation. Based upon the sensory and MR findings, an exploration of the groin was performed under general anesthesia in April 2007. The vas deferens was found to be embedded

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Fig. 1 Exploration of the groin in a patient with chronic ejaculatory pain after groin hernia mesh repair revealed that the vas deferens (indicated by *arrows*) was embedded and twisted in a mass of shrunken mesh and scar tissue

and twisted in a mass of shrunken mesh and scar/inflammatory tissue (Fig. 1) and carefully dissected free with mesh removal (Fig. 2). In addition, sutures were found to constrict the iliohypogastric and ilioinguinal nerves and the nerves were transected 5 cm cranial to the lesions. The genitofemoral nerve could not be visualized. At three months follow-up the patient reported that dysejaculation and the episodes of radiating pain had disappeared, and his sexual function had normalized. Postoperative quantitative sensory testing showed increased thermal hypoesthesia and tactile hypoalgesia on the operated side when compared to the contralateral, but normal and identical pressure pain thresholds bilaterally (Table 1).

Discussion

To our knowledge this is the first detailed report on the treatment of pain-related sexual dysfunction (ejaculatory



Fig. 2 The vas deferens (indicated by the *arrow*) is dissected free from the mesh and scar tissue

pain) following inguinal herniotomy, as reported by approximately 2% of patients [2]. The available literature suggests that mesh removal and neurectomy may alleviate chronic postherniotomy pain but the effect on ejaculatory pain has not been specifically investigated [7–9]. We did not perform a standardized procedure such as the triple neurectomy recommended by others [7], only neurectomy of the nerves with visible pathology together with mesh removal based upon intraoperative findings. Furthermore, the procedure was followed by increases in pain thresholds as assessed by quantitative sensory testing, a method that should be used in future studies of pathogenic mechanisms and treatment of chronic postherniotomy pain and dysejaculation [3].

Conclusion

Postherniotomy dysejaculation may be caused by duct compression and/or nerve damage from the previous hernia operation, and reoperation with spermatic duct decompression and nerve transection may alleviate dysejaculation.

Table 1 Results of quantitative sensory testing before and after surgery for chronic ejaculatory pain after groin hernia repair

	Heat (°C)		Heat pain (°C)		Tactile (mN)		Tactile pain (mN)		Pressure pain (kPa)	
	Pat.	Cont.	Pat.	Cont.	Pat.	Cont.	Pat.	Cont.	Pat.	Cont.
Before mesh removal/neurectomy	45.2	34.5	49.8	47.2	588.2	5.9	980.2	147.1	115	277
After mesh removal/neurectomy	49.3	35.1	50.6	46.6	588.2	5.9	1764.7	254.9	241	235

All tests investigated detection thresholds. *Pat.*, pathological side; *Cont.*, contralateral side; *mN*, millinewtons; *kPa*, kilopascals; °C, degrees celsius

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