

Chronic Pain in Scrotum after Vasectomy and its Management: A Single Centre Retrospective Analysis

Sanjay Hada¹, Pawan Bansal², Vinita Bansal³, Ankur Jhanwar^{4*}

¹Senior Resident, ²Assistant Professor,
Department of Surgery, Government Medical College, Kota, Rajasthan, India.

³Consultant, Department of Obstetrics & Gynaecology, Government Medical College, Kota, Rajasthan, India.

^{4*}Senior Resident, Department of Urology, Government Medical College, Kota, Rajasthan, India.

ABSTRACT

Objective: To investigate the efficacy of epididymectomy in patients with significant scrotal pain after vasectomy.

Patient and Methods: Sixteen patients were identified retrospectively to have undergone epididymectomy for pain after vasectomy; 19 epididymectomies were performed (three bilateral and 13 unilateral). Details from the preoperative investigations, histological examination and follow-up of symptoms were analysed and correlated. Outcomes were initially assessed at the routine outpatient clinic review 3 months after surgery and the long-term outcomes were assessed by a telephone interview 3±8 years after epididymectomy (mean 5.5 years).

Results: Of the 16 patients, 14 had excellent initial symptomatic benefit from epididymectomy. At 3±8 years afterward, nine of 10 patients interviewed had a sustained improvement of their scrotal pain. The following were indicators of a poor outcome: atypical symptoms including testicular or groin pain; erectile dysfunction and normal appearance of the

epididymis on ultrasonography. Patients with bilateral scrotal pain can have a good outcome after epididymectomy.

Conclusion: Epididymectomy in well-selected patients is a reliable and effective treatment for pain after vasectomy.

Keywords: Epididymectomy, Scrotal Pain, Vasectomy.

*Correspondence to:

Dr Ankur Jhanwar,
668 A RK Puram
Kota, Rajasthan, India.

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INTRODUCTION

Vasectomy is a common and effective means of contraception. Chronic scrotal pain is a recognized complication after vasectomy and represents the commonest late complication that may adversely affect the quality of life in men after vasectomy.¹ Up to a third of vasectomized men develop chronic scrotal discomfort, and about half of these consider the pain troublesome and may subsequently require further intervention.²

PATIENTS AND METHODS

The clinical notes of all men who underwent epididymectomy over a 10-year period were reviewed and 16 were identified who underwent the procedure for scrotal pain after vasectomy (mean age 41.5 years, range 31±52). They had all undergone uneventful vasectomies previously and subsequently presented with severe scrotal pain. Thirteen men had unilateral scrotal pain and three men were symptomatic bilaterally. In addition to scrotal symptoms, one patient had groin pain and two also complained of erectile dysfunction, both dating from the time of vasectomy. The mean (range) duration of symptoms before hospital referral was 2.2

(0.33±18) years and the time elapsed from vasectomy to the onset of pain was 3 (0±11) years.

Clinical examination revealed a swollen tender epididymis on one (in 12 men) or both (in three men) sides. In one other patient, testicular tenderness was noted along with thickening of the epididymis. Findings on scrotal ultrasonography concurred with the clinical impression of epididymal engorgement, thickening or nodularity in all except four cases. Among these four, one revealed epididymal cysts and the other three had normal scans, including the patient with testicular tenderness.

Initial management was by conservative measures, e.g. simple analgesia including NSAIDs and the use of scrotal supports. With persistent significant symptoms, all patients underwent epididymectomy to the symptomatic side (19 epididymectomies, three bilateral and 13 unilateral). The outcome was initially assessed at routine outpatient clinic review 3 months after surgery. The long-term outcome was assessed by telephone interview 3±8 years after epididymectomy (mean 5.5 years). Patients were first asked whether they were still having problems

or whether they felt completely better. Symptomatic patients were then asked about the nature of their persistent symptom(s) and the effect on their quality of life.

RESULTS

The early outpatient review 2±4 months after surgery showed that 14 of the 16 patients had good symptomatic relief. The two patients with persistent symptoms included the one with testicular tenderness on examination and the one with the epididymal cyst on ultrasonography. The patient who had presented with unilateral testicular tenderness also had persistently positive sperm counts (7 months after vasectomy). He then underwent an epididymectomy on the tender side and a second vasectomy on the contralateral side. The patient with the epididymal cyst had persistent, albeit slight, discomfort on the operated side. On histological examination of the epididymectomy specimens, there was epididymal dilatation in 11 cases, with two of these also showing evidence of inflammation and one showing a sperm granuloma. A further three cases had isolated sperm granulomas and two had cysts. On reassessment of the symptoms by interview, the 14 patients who had initially good symptomatic responses were contacted; four of the 14 patients were not contactable, as they had moved from the region. Of the 10 successfully contacted, four remained completely asymptomatic and five reported mild symptoms after activities such as straining or lifting, which were consistently better than before surgery. One patient, after an initially satisfactory early result, reported further problems 4 years after epididymectomy, with recurrent pain on the operated side. On review of his previous notes, the preoperative clinical examination had given the impression of nodularity in the tail of the epididymis, the ultrasonogram was normal, and the histology from the epididymectomy specimen showed epididymal distension with chronic epididymitis. Further clinical and radiological assessment showed a recurrent cystic swelling at the lower pole of the ipsilateral testicle. He has since had this excised, with good symptomatic relief at one year.

DISCUSSION

The physical result of vasectomy is mechanical duct obstruction. This, together with perineural fibrosis, has been postulated as a probable aetiological factor in the development of scrotal pain after vasectomy.³ The mechanical duct obstruction is secondary to vasectomy and, in some cases, results from epididymal compression from adjacent cysts. It is unclear why some patients get this pain and others do not. Different degrees of local fibrosis after inflammatory responses and the varying extent of epididymal compression may account for the subjective experience of scrotal pain in some patients. The main histological findings in studies of patients with scrotal pain have been epididymal engorgement, complex cystic disease and chronic epididymitis.

In the management of such patients with scrotal pain, conservative measures, e.g. analgesia and scrotal supports, are usually tried first, but as these seldom provide any lasting benefit, patients with more severe symptoms may require surgical intervention. The patients who had prolonged symptomatic benefit after epididymectomy had good preoperative

evidence of mechanical duct obstruction, which was confirmed on histological examination. The presence of chronic inflammatory changes in the epididymis has been suggested to be a predictor of poor outcome after epididymectomy.^{3,4} The present patient with continuing problems had mild chronic inflammation which may have contributed to his symptoms. Whereas patients with atypical clinical and radiological features, e.g. an abnormal scrotal ultrasonogram, pain in the groin and testes but not in the epididymis, may still have a satisfactory outcome from epididymectomy, this group of patients also have a higher failure rate, with recurrence or persistence of their symptoms. Preoperative counselling in these patients is particularly important. An epididymectomy excludes future attempts at reversing the vasectomy. However, with the increasing availability of effective sperm retrieval techniques for in vitro fertilization, it is still possible for a vasectomized man to father children. Additionally, in the case of unilateral epididymectomy, a contralateral vasectomy reversal would clearly remain an option.

CONCLUSION

In summary, epididymectomy in well-selected patients is a reliable and effective treatment for pain after vasectomy. In patients with good preoperative clinical and radiological evidence of epididymal duct obstruction, this procedure provides lasting relief, regardless of the time before the onset of symptoms and the duration of symptoms.

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