

Lumbar sympathectomy in the management of rectal tenesmoid pain

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Summary

Lumbar sympathectomy was performed in twelve patients whose main or sole complaint was rectal tenesmus resulting from pelvic carcinoma, and in whom psychotropic drugs had failed to control their symptom.

Following bilateral chemical lumbar sympathectomy, ten patients achieved complete relief and one patient achieved partial relief. No patient achieving relief had recurrence of their tenesmoid pain. Patients were followed up for between three days and seven months. No complications were noted except temporary hypotension in one patient.

It is concluded that lumbar sympathectomy is a safe and effective treatment for rectal tenesmus and may be the treatment of choice if pharmacological methods have failed to control this symptom.

Introduction

Rectal tenesmus is a persistent, painful and ineffectual sensation of straining at stool or opening of the bowels. The pain is usually spasmodic in nature. It is most commonly encountered in patients with carcinoma of the rectum or other pelvic organs, but has also been reported in colitis (1), dysentery (2), diabetes (3), Hodgkin's disease (4), and infection (5-7).

Isolated reports and personal communications have been published on the use of lumbar sympathectomy to control rectal tenesmus (8,9) and therefore a prospective study of twelve patients, in whom pharmacological treatment had been unsuccessful, was undertaken to evaluate this treatment.

Patients and method

Twelve consecutive patients with rectal tenesmus were studied. In six patients this was their only symptom, whilst one patient also had chest pain from secondary deposits and five patients also had pain from their primary condition. In all cases the tenesmoid pain was either

their sole complaint or their most distressing symptom. At the time of the study, all were receiving narcotics and all patients had received either a phenothiazine (chlorpromazine) and/or an anxiolytic (diazepam) or an anti-depressant. None of these had controlled their rectal tenesmoid pain.

Following informed consent, all patients were pre-loaded with 500 ml of Hartmann's solution intravenously. Ten patients were sedated and two patients received a general anaesthetic.

Lumbar sympathectomy was performed by a single needle technique after the method described by Hatangdi and Boas (10). With the patient lying prone, local anaesthetic was infiltrated to skin and deeper tissues. Two 15 cm needles were inserted (stiletted 17 SWG) and advanced to reach the anterolateral aspect of the mid-portion of the L3 vertebral body. Mobile C-arm X-ray screening allowed correct placement of needles and monitored the spread of radio-opaque contrast medium. After negative aspiration, a total volume of 5 to 12 ml of 6% phenol in water was injected.

Patients were seen on a monthly basis following sympathectomy, either as out-patients or in the hospice.

Results

The age, sex, primary diagnosis and brief clinical details of each patient are given in Table I.

Ten of the twelve patients gained complete relief of tenesmus, one gained partial relief, and one patient no relief. The latter two patients consisted of one who had had a previous resection and one who had not. Only one had had concomitant pain. Therefore neither of these factors can be said to provide an indication of which patients will be helped by sympathectomy. Of the five patients with concomitant pelvic pain, three reported that this symptom was also relieved.

All the patients who gained relief remained symptom free at their most recent follow-up. The duration of relief ranged from three days to seven months with a mean of fifty three days. Four patients in this study have subsequently died.

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TABLE 1 Age, sex, diagnosis and clinical details

Age	Sex	Diagnosis	Clinical details
66	Female	Leiomyosarcoma of ileum	Post colostomy and radiotherapy
81	Female	Anorectal carcinoma	Post anterior resection
72	Male	Prostatic carcinoma	Post orchidectomy and radiotherapy
44	Female	Colonic carcinoma	Post pelvic clearance and chemotherapy
73	Male	Prostatic carcinoma	Post TUR
50	Male	Rectal carcinoma	Post anterior resection
70	Male	Sigmoid carcinoma	Post sigmoid colectomy
49	Female	Ovarian carcinoma	Post hysterectomy and colostomy
49	Female	Cervical carcinoma	Post radiotherapy
64	Male	Colonic carcinoma	Post local excision and radiotherapy
57	Male	Rectal carcinoma	Post anterior resection

No complications were noted except for one patient who was hypotensive for eight hours following the sympathetic block. This responded to the intravenous administration of fluid.

Discussion

The anatomical pathways by which the sensation of tenesmus is transmitted centrally are not clearly understood. However, normal sensation from the rectum passes via the sympathetic chain to enter the spinal cord at the level of the first and second lumbar vertebrae (8), and tenesmus may also be transmitted via this pathway. Such sensation would be interrupted by sympathetic blockade.

Commonly employed treatments for rectal tenesmus include phenothiazines (chlorpromazine), antidepressants and anxiolytics (diazepam) (9), and radiotherapy (11). However, it is our experience that these treatments may fail to control the symptom and in this study all patients had already received one or more of these treatments without relief. In all twelve patients, rectal tenesmus was either the sole complaint or the most distressing symptom and, following a bilateral chemical lumbar sympathectomy, ten of the twelve patients were completely relieved of the symptom.

It is not clear why two patients did not achieve relief of the symptom. Variations in the positions of the sympathetic ganglia have been noted (12,13) but peripheral vasodilatation was recorded in these two patients, sug-

gesting blockade of the sympathetic chain was achieved. Although in some patients the follow-up is short and four patients have subsequently died, we believe that the high success rate and absence of complications warrants the use of this technique, particularly in patients where non-invasive treatment has failed to relieve them of tenesmus.

In conclusion, chemical lumbar sympathectomy offers a safe and effective method of relieving rectal tenesmoid pain.

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