SACROCOCCYGEAL CHORDOMA PRESENTING WITH STRESS INCONTINENCE OF URINE*

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SUMMARY

A case of sacrococcygeal chordoma is reported in which, in spite of an unusual presenting symptom, the correct provisional diagnosis was made. These tumours of the notochord are uncommon and diagnosis is often made late, thus making any possibility of curative treatment unlikely. A knowledge of the existence of the condition, together with rectal examination, are the two most important keys to diagnosis.

The patient, a 70-year-old nulliparous Irish woman, was first seen in the gynaecological clinic in January 1970. She complained that for 18 months she had been troubled by leakage of urine on the stress of coughing, sneezing and sudden movement. There had also been urgency of micturition, but in the past 3 months some difficulty in commencing micturition. She passed urine about every 3 hours by day and usually twice at night, with no pain. On examination, stress incontinence was elicited with the patient standing. An atrophic vaginitis was present and ethinyl oestradiol tablets were prescribed for this.

When seen again 3 months later she reported that in addition to the leak of urine on straining there was now a continuous trickle and the bed was wet at night. Pain was severe in the sacral region and around the left hip, and she was constipated for up to 3 or 4 days at a time. Examination showed a distended bladder, wasting of both quadriceps femoris muscles, and absent knee and ankle reflexes. Pinprick was felt over the perineum. On rectal examination there was gross constipation, but it was also appreciated that there was a firm elastic mass arising from the sacrum and pushing the rectum forward. The tumour was approximately 10 cm in diameter, slightly to the left of the midline, and did not involve the rectal wall. These findings prompted a provisional diagnosis of chordoma. She was admitted urgently to hospital where catheterization of the bladder confirmed the diagnosis of neurogenic overflow retention of urine, the residual urine volume being 700 ml. Faecal incontinence was now a problem.

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Fig. 1. Chordoma showing the presence of the characteristic 'physaliphorous' or bubble-bearing cells. (*Top* × 28, *bottom* × 185.)

Radiological investigation showed some osteolysis in the sacrum, and final proof of the diagnosis of sacrococcygeal chordoma was obtained histologically from aspiration needle biopsy *per rectum* (Fig. 1).

On 16 April 1970 a left iliac colostomy and an abdominosacral excision[1] were carried out through a left lower paramedian incision and a midline sacral incision. The tumour was easily separated from the rectum. However, posteriorly gelatinous tumour tissue extended up to the spinous process of the first sacral vertebra, and for this reason the excision was not complete.

Postoperative cobalt radiotherapy was given. The weakness in the legs remained so that she was unable to stand, and an indwelling urethral catheter was required in order to keep her dry. She died in a cachectic state 4 months after operation and a postmortem examination was not performed.

DISCUSSION

Our main purpose is to draw attention to the uncommon phenomenon of stress incontinence of urine as the presenting symptom in a female patient with a sacrococcygeal chordoma. An extensive search in the literature has disclosed only one passing reference to this—Windeyer[2] mentions a woman of 55 who 'had gone through the stages of stress incontinence to complete incontinence of urine'.

Secondly, our case emphasizes the importance of digital examination *per rectum*. Higinbotham *et al.*[3] noted in a 35-year series of 30 cases of sacral chordoma treated at the Memorial Hospital, New York, that misdiagnosis had occurred initially in 17. Back pain radiating to one or both legs is the commonest early symptom, leading to frequent confusion with lumbar disc lesions and arthritis. In every instance a mass was palpable *per rectum*.

Only by earlier diagnosis can the prospects of cure by radical surgery and radiotherapy be improved.

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REFERENCES

1. Localio, S.A., Francis, K. C., Rossano, P. G. (1967): Ann. Surg., **166**, 394.
2. Windeyer, B. W. (1959): Proc. Roy. Soc. Med., **52**, 1088.
3. Higinbotham, N. L., Phillips, R. F., Farr, H. W. and Hustu, H. O. (1967): Cancer (Philad.), **20**, 1841.