A Large Apocrine Hidrocystoma Located over the Thoracic Spine in a Nigerian

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SUMMARY

A giant apocrine hidrocystoma situated over the thoracic spine is reported in a Nigerian boy of 18 years. It was clinically thought to be either lipomeningocele or a dermoid cyst but histological examination revealed the identity of this rare lesion. Apocrine hidrocystoma deserves consideration in the differential diagnosis of cystic lesions of the cranio-spinal axis.

INTRODUCTION

Apocrine hidrocystoma is a benign cystic tumour derived from the secretory portion of apocrine sweat glands. It is usually solitary and occurs often on the head. Histological evidence shows that this unusual lesion is a true adenoma1—hence the other title, cystadenoma, of which about 100 cases have appeared in the literature. This paper reports a large apocrine hidrocystoma situated over the thoracic spine in a young Nigerian, adding the disease to the list of benign cystic lesions that may be found in relation to the cranio-spinal axis.

CASE REPORT

FA, a Nigerian school boy of 18 years of age presented at the Neurosurgery Outpatient Department of the University College Hospital, Ibadan on 2 September 1985 on account of a lump in the middle of the back. The painless swelling had been present since he was born and had grown slowly over the years to attain a large size. He had no other similar swellings on his body and no member of his family has the same complaint. There were no previous injuries to his back. He was otherwise well.

On examination, he was healthy-looking. He had a pendunculated, soft, cystic non-tender mass situated over the middle of the thoracic spine (Fig. 1). It was oval in shape and measured 10 cm from the base to its tip, and 8 cm around the fundus. From its attachment to about a third of its length, it was covered by normal-looking skin; this part of the tumour felt lipomatous. The rest of it was covered by thin, shiny skin devoid of dermal elements and scarred at its tip. The swelling transilluminated light especially at its distal pendulous part.

He had no other swelling on his body. Neurological examination was normal. Radiography of the craniospinal axis showed no...
abnormality. The differential diagnoses made included dermoid cyst and lipomeningocele.

At operation the tumour was easily excised. The base of the tumour had mainly fatty tissue; next to it a thin-walled cyst was encountered which easily ruptured during operation, releasing copious clear watery fluid. The collapsed cyst was then completely and cleanly removed, exposing the smooth hollowed bed on which it rested. There was no connection with the spine.

Post-operatively, the patient made an uneventful recovery. When last seen at the Neurosurgery Clinic, he was in satisfactory condition.

FIGURE 1 - Ovoid-shaped pedunculated mass over the dorsal spine

PATHOLOGY

Microscopically, the section showed an apocrine hidrocystoma lined by a double-layered epithelium, with eosinophilic cells showing decapitation secretory activity commonly observed in apocrine cells (Fig. 2). There were focal areas of papillary projection (Fig. 3) with surface ulceration in places, the submucosa being congested and infiltrated by chronic inflammatory cells. The cystic wall was thickened by fibrosis.

FIGURE 2 - H and E staining showing low columnar epithelial cells with eosinophilic cytoplasm and decapitation secretion lining the cyst wall.

FIGURE 3 - An area of the cyst wall showing papillary projections lined by cells with decapitation secretion.
DISCUSSION

Apocrine hidrocystoma presents as a solitary tumour in about 93 per cent of cases.\(^3\) Although it is rare for more than one cyst to be found on the same patient,\(^4,5\) Kruse \textit{et al.}\(^1\) described the unusual case of a middle-aged man with 40 apocrine hidrocystomas on his face and ears. Males are more affected than females in a male-female ratio of 5 to 2.\(^1\)

The solitary cyst encountered in this Nigerian boy was, however, unusual in some ways. Firstly, it is one of the largest apocrine hidrocystomas so far reported. The largest one found in our search of the available literature measured 7 cm x 5 cm and was located in the parasternal area of the trunk.\(^6\) The sizes of the 17 cases described by Mehregan\(^1\) varied from 3 mm to 15 mm. Ter Poorten\(^1\) also reported one cyst of 1.5 cm in diameter in a man of 42 years.

Secondly, apocrine hidrocystomas are rare in the trunk where our case occurred. Ninety per cent of them are found in the head region (scalp, face and ears), 5 per cent in the genitalia and the remaining 5 per cent in the trunk.\(^2,3\) Cysts located in the trunk are more liable to be concealed for a long time, thus allowing them to grow to giant sizes, as shown by our case and that of Holder \textit{et al.}\(^2\).

The young age of our patient is also striking. Apocrine hidrocystoma typically occurs in middle-aged persons in the fifth decade\(^7,8\) or in the sixth decade\(^9,10\) of life, the mean age of all patients being 50 years.\(^2\) The few exceptions to this middle-age occurrence include the 17 year-old patient described by Mehregan\(^1\) and the 4 year-old boy reported by Matsumoto \textit{et al.}\(^2\).

The duration of symptoms in our patient is the longest known to be recorded for apocrine hidrocystoma in the literature. Most cases present within a year or two of appearance, except 4 of the 17 cases of Mehregan\(^1\) which endured 'for years' before presentation and the 4-year-old boy whose cyst appeared on the eyelid 'soon after birth'.\(^2\) On the scalp, face and ears where these tumours commonly occur and where they cannot easily be concealed, early presentation is more likely than late presentation. On the other hand, trunk lesions, like our case, can be concealed for years, leading to delay in treatment.

Complete surgical excision is the treatment of choice and post-operative recurrence is unknown. One lesion, treated by shave biopsy recurred five years later.\(^8\)

CONCLUSION

Histological examination is usually required to make a diagnosis of apocrine hidrocystoma since it is often missed on clinical assessment. Thus, it was mistaken for epidermoid cyst by Ter Poorten\(^1\) for cavernous haemangioma by Matsumoto \textit{et al.}\(^2\) and by us for a dermoid or lipomeningocele because of its occurrence in the mid-line. In view of its predilection for the scalp, apocrine hidrocystoma merits consideration, however little and remote, in the differential diagnosis of solitary cystic lesions of the craniospinal axis.

REFERENCES