

Tumours within the spinal column

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Summary

Sixty-six cases of mass lesions compressing the spinal cord are presented. The masses were neoplastic in 86.36% of the cases. Epidural masses (80.30%) remain by far the largest group, consisting chiefly of Burkitt's lymphoma and various metastatic carcinomas. Only 6.06% of the lesions were intramedullary and the glioma/paraglioma remains virtually absent.

Résumé

66 cas de lésions expansives comprimant la moelle épinière sont présentés. Les masses sont néoplasiques dans 86.36% des cas. Les masses épidurales (80.30%) demeurent le loin le groupe le plus important et comprennent surtout le lymphome de Burkitt et divers carcinomes métastatiques. 6.06% seulement des lésions sont intramedullaires et le gliome/paragliome reste pratiquement absent.

Introduction

In a previous report on intraspinal canal masses from the Neurosurgery Clinic at the University College Hospital (UCH) in Ibadan, Nigeria (Odeku, Adeloje & Osuntokun, 1971), fifty-three cases with histologic confirmation of the lesion in each were described. The analysis, as in the present series, excluded granulomas due to tuberculosis and histoplasmosis. Although no fewer than eight cases of tuberculous epidural granuloma have been encountered in our Neurosurgery Unit and removed at laminectomy, the large majority of the tuberculous paraplegic patients

at the UCH, Ibadan, have been managed by established practice in the Orthopaedic and Traumatic Surgery Clinic. According to Lawson (1972 personal communication), two or three new tuberculous paraplegic cases are seen each month in the clinic. From 1961 to 1969 no less than 267 'tuberculous spine' patients were treated and many of them (170) with some weakness or total paralysis of the lower limbs from secondary compression of the spinal cord. Four cases of spinal cord compression due to spinal and epidural histoplasmosis (*H. duboisii*) have been recorded (Lawson, 1970).

We presented briefly the pattern of sixty-six cases seen in our Neurosurgery Unit in the 9 years from 1962 to 1971.

Analysis of cases

Age-sex distribution of patients

The sixty-six patients with spinal cord compression were predominantly males (forty-eight) exceeding the females (eighteen) in a ratio of 8:3. The youngest patient was a 6-month-old boy with paraplegia due to lumbar epidural extension of a huge retroperitoneal neuroblastoma. The oldest patient was a 65-year-old man with dorsal metastatic adenocarcinoma of the prostate gland. Twenty-eight (42.36%) of the patients were in the first two decades of life due to high incidence of epidural Burkitt's lymphoma deposits in the young males. The first peak was in the first decade with seventeen patients. The second peak with twelve patients in the fifth decade was due to various metastatic epidural neoplasms. There were nine patients each in the third and sixth decades, and only one in the seventh.

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Symptomatology

In general loss of motor power and muscle tone in the limbs (fifty-six cases), pain (thirty-nine cases) and urinary bladder-bowel incontinence/retention were evident in many of the patients.

Distribution of cases regarding anatomic location and histologic type of lesion

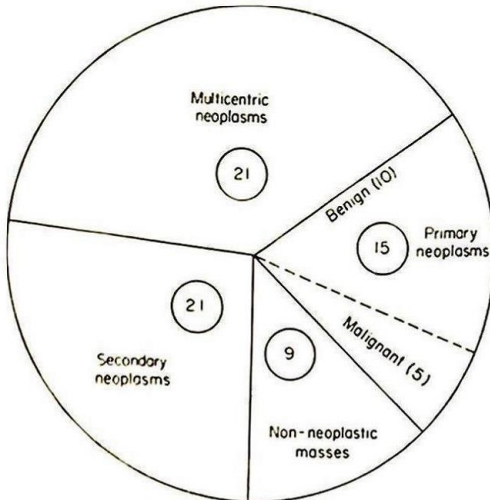


FIG. 1. Distribution of different types of intraspinal canal masses (sixty-six cases), UCH, Ibadan.

Figure 1 shows the overall distribution of the masses into the various anatomic compartments within the spinal canal. In the fifty-three (80.30%) epidural cases there were forty-six male patients. The sex distribution was even in the intradural cases, there being six males to seven females. Only four (6.06%) cases were intramedullary. Nine (13.64%) of the thirteen intradural cases were outside the substance of the spinal cord and three of them involved the cauda equina.

In Fig. 2 the main pathologic groups are shown. Each of the multicentric and secondary neoplasm groups has 31.82% and the primary neoplasm and the non-neoplastic groups 22.72% and 13.64% of all the cases respectively.

Of the sixty-six patients nine had non-neoplastic masses (Table 1). Forty-seven (82.45%) of the fifty-seven neoplastic masses in the remaining patients were malignant. Twenty-one each of these were multicentric and secondary neoplasms and five were primary neoplasms (Tables 2 and 3). One of the two

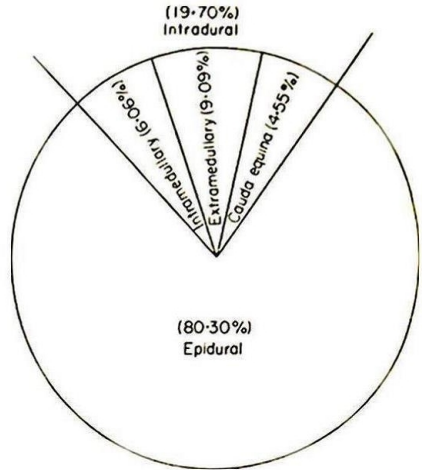


FIG. 2. Anatomic distribution of sixty-six cases of intraspinal canal masses, UCH, Ibadan.

chordomas in the primary neoplasm group was found in the sacrococcygeal region in a 15-year-old girl. She had been paraplegic for 3 months. Beneath the huge neoplastic mass was a destroyed sacrum with

TABLE 1. Non-neoplastic masses

Type of lesion	No. of cases
Non-specific granuloma	4
Fibrolipoma	3
Schistosomal granuloma	1
Cavernous haemangioma	1

TABLE 2. Primary and multicentric neoplasms

Type of lesion	No. of cases
Primary	
Benign	
Meningioma (one mixed with Schwannoma)	4
Neurofibroma	3
Schwannoma	3
Malignant	
Melanoma	1
Ependymoma	1
Neuroblastoma	1
Chordoma	2
Total	15
Multicentric	
Burkitt's lymphoma	19
Plasmocytoma	2
Total	21

suggestive irregular areas of calcification on the plain radiographs. Because of her age the differential consideration of a chondrosarcoma remains. Autopsy

but the spine examination was normal. She succumbed to respiratory distress. Autopsy uncovered spinal epidural neoplasm extending from the involved apex of one lung.

TABLE 3. Secondary neoplasms

Type of lesion	No. of cases
Reticulum cell sarcoma	4
Prostatic carcinoma	4
Thyroid carcinoma	2
Hepatocellular carcinoma	2
Hodgkin's disease	1
Malignant melanoma (eye)	1
Hypernephroma	1
Bronchogenic carcinoma	1
Chorion carcinoma	1
Undifferentiated carcinoma	4
Total	21

showed metastatic foci in the humerus and clavicle.

In the secondary or metastatic group, all of the lesions were epidural deposits, the majority being at the dorsal levels. The two cases with thyroid epidural deposits were of the well-differentiated follicular type. An unusual case of epidural chorion carcinoma was seen in a 45-year-old lady who became paraparetic suddenly. She had urinary retention and loss of sensory modalities from the cervicodorsal level downwards. Chest radiographs revealed metastatic lesions

Comment

The overall clinical pattern in the sixty-six cases above is little altered from the Ibadan picture presented by Odeku *et al.* (1971). The epidural lesions continue to increase with more metastatic carcinomas, particularly from the prostate gland. Of the six or seven spinal mass lesions encountered in our clinic in each of the past 2 years the substance of the spinal cord has not been the seat of any lesion. Our experience tends to follow that recorded by Ramamurthi (1970) in India where at the Madras Institute of Neurology of the large group of 294 lesions compressing the spinal cord only thirty-six were intramedullary and seven of these were unclassified.

References

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