NEURILEMMOMA OF BONE
Report of a Case

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Neurilemmoma occurs in bone very rarely. Peers (1934) described a case in the mid-shaft of the right ulna in a man of fifty-five. The tumour was diagnosed as an intramedullary neurogenic sarcoma (perineural fibroblastoma), and the patient was alive twenty months after amputation. Histologically, the tumour had the distinctive characteristics of a neurilemmoma. Gross, Bailey and Jacox (1939) described a case in a woman of thirty-seven, affecting the mid-shaft of the left humerus. A diagnosis of neurofibroma was made, but histologically it was a typical neurilemmoma. De Santo and Burgess (1940) described a typical neurilemmoma of the mid-shaft of the right ulna in a man of thirty-seven. Schroff (1945) described a neurilemmoma arising in the ramus of the mandible. Güther (1952) reported a malignant neuroma in the mid-shaft of the humerus of a man of twenty. Histologically, many areas of this tumour showed features of a neurilemmoma. One tumour, reported by Jones (1953), was in a woman of forty-four and was located in the fourth metacarpal bone of the left hand. Jaffe (1959) mentioned his experience of two cases of neurilemmoma involving bone. In one the lesion involved the patella, and in the other the sacrum. Lichtenstein (1959) had come across only a single case of this tumour, in the patella.

CASE REPORT

A man aged twenty-one complained of a painful swelling of the tip of the right index finger, first noticed after a minor injury to the finger eight months before.

On examination, there was a firm, slightly tender swelling in the terminal segment of the finger (Fig. 1). Movements of the interphalangeal joint were normal. Radiographs showed expansion of the whole of the terminal phalanx of the right index finger by a multiloculated lesion, traversed by irregular thin bony septa (Fig. 1 inset). The chest and the other bones were normal. A tentative diagnosis of enchondroma was made.
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**Operation**—The terminal phalanx was found expanded. On the anterior surface there was a soft area. This was incised, and through the opening the lesion was thoroughly curetted.

On the seventh day after operation the distal half of the terminal phalanx showed dry gangrene, and the finger tip was amputated at the distal interphalangeal joint.

**Pathologically**, the curettings consisted of soft fragile greyish material. Histological examination showed a typical picture of a neurilemmoma with predominant type A fibrillar tissue of Antoni with characteristic palisading of nuclei and formation of Verocay bodies (Fig. 2). The tumour was intimately mixed with a few degenerated bone spicules and showed small areas of type B reticulated and oedematous tissue of Antoni. There was no evidence of malignancy.

**COMMENT**

On clinical and radiological grounds this tumour was thought to be an enchondroma and its true nature was determined only from histological examination. Since so few examples of this lesion have been reported, it is not possible to comment on its incidence or age distribution. The history is usually of long duration, but like the radiological findings it is non-specific (Jaffe 1959). In the reported cases the tumour has usually affected the mid-shaft when it has occurred in the long bones (Peers 1934; Gross, Bailey and Jacox 1939; De Santo and Burgess 1940; Güthert 1952; Jones 1953). This seems to be related to the nerve supply of the bones. The intramedullary tumours probably arise from the minute nerve twigs which, according to Köllicker (1873, cited by Coley 1960) accompany the nutrient artery to the bone.

A neurilemmoma is a benign lesion and does not recur if the tumour tissue is thoroughly curetted out or if the affected area is removed by block resection (Jaffe 1959). It is distinct in its histogenesis from the solitary neurofibromas that may arise from the nerves in the bones and also from the osseous changes found in von Recklinghausen’s disease.

**SUMMARY**

A case of intramedullary neurilemmoma of the terminal phalanx of the right index finger is reported, and the cases previously reported are briefly reviewed.

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**REFERENCES**


