

Chondrosarcoma in the distal phalanx of the ring finger

A case report

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There have been no reports of chondrosarcomas arising in the distal phalanx of the hand, although malignant cartilaginous tumors have been reported sporadically in the proximal phalanges and the metacarpal bones (Roberts and Price 1977, Mankin et al. 1980, Gitelis et al. 1981, Schwartz et al. 1987).

We present a case of chondrosarcoma in the distal phalanx of the ring finger in a 58-year-old woman.

Case report

A 58-year-old woman presented with swelling of the distal phalanx of her right ring finger. The swelling had been present for 13 years, but had only recently become painful. Radiographs showed a radiolucent lobulated lesion ballooning the whole of the distal

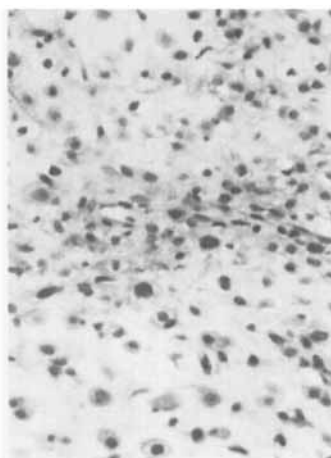
phalanx. The cortex was thin and absent in some areas, and numerous calcifications were seen (Figure 1). The lesion was excised together with the distal half of the middle phalanx. The 3-cm specimen was firm, grayish white, and lobulated.

The histologic examination showed a cartilaginous neoplasm with increased cellularity and pronounced cytologic atypia: large, often binucleated, cartilage cells with plump nuclei displaying hyperchromatism, pleomorphism, and mitotic activity. There were areas of myxoid change and focal calcification. The tumor involved the entire phalanx, surrounding preexisting trabeculae and infiltrating marrow spaces and adjacent soft tissues (Figure 1). The appearance was characteristic of a low-grade chondrosarcoma.

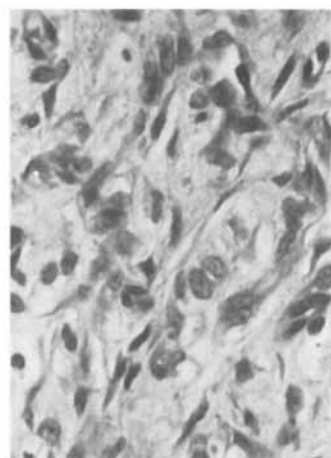
The patient was well and free from disease at the 3-year follow-up.



A. Ballooning of the cortex and stippled calcification.



B. Increased cellularity and cytologic atypia; low-grade chondrosarcoma. HE, x100.



C. Section from soft tissues with cartilaginous tumor cells invading. HE, x200.

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Figure 1. Chondrosarcoma in the right ring finger.

Discussion

Small cartilaginous tumors of the hands and feet are almost always benign, in contrast to large axial tumors, which are usually malignant (Roberts and Price 1977, Dahlin and Unni 1986).

It is unclear, however, as to whether chondrosarcomas of the small bones of the hands and feet are truly as rare as the literature would suggest, for they often defy recognition. Indeed, it is possible for a cartilaginous tumor of a frankly malignant nature to exhibit innocuous cellular characteristics (Bullough and Vigorita 1984), whereas it is not unusual for tumors of the small bones of the hand to be cellular, to show nuclear atypia, to display myxoid change, to erode adjacent bony structures, and yet behave benignly (Roberts and Price 1977, Dahlin and Unni 1986). The uncertainty is further confounded because low-grade chondrosarcomas are slowly growing neoplasms and, although liable to recur locally, only rarely metastasize (Frassica et al. 1986).

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