

## Extraskelatal Osteochondroma in the Finger

### Mimicking the Fourth Phalangeal Bone

TOSHITATSU NOGITA<sup>1</sup> and MAKIO KAWAKAMI<sup>2</sup>

Departments of <sup>1</sup>Dermatology and <sup>2</sup>Surgical Pathology, Tokyo Women's Medical College, Tokyo, Japan

**A 36-year-old Japanese woman with an extraskelatal osteochondroma in the left thumb is reported. A roentgenogram showed a calcified tumor, located at the distal portion of the left distal phalanx, which mimicked the fourth phalangeal bone. The pathogenesis might in this case be hamartomatous.**

(Accepted December 2, 1991.)

Acta Derm Venereol (Stockh) 1992; 72: 287-288.

T. Nogita, Department of Dermatology, Tokyo Women's Medical College, 8-1 Kawadacho, Shinjuku-ku, Tokyo 162, Japan.

Although a considerable amount of data has been accumulated on cartilaginous tumors attached to or arising from bone and/or cartilage, much less information is available on the various soft tissue tumors. Extraskelatal chondroma is usually solitary, dome shaped, bony hard, and is found most commonly in the distal extremities, especially in the fingers. To date only twelve cases have been reported in Japanese. In this study we describe a solitary, white, bony hard nodule in the thumb of a Japanese woman.

#### CASE REPORT

A 36-year-old Japanese woman presented with a hard mass protruding at the tip of the left thumb. The tumor had been slowly growing in size for three years. Physical examination revealed an 8 mm by 11 mm white, hard tumor with a smooth surface (Fig. 1). A roentgenogram showed a calcified tumor, located at the distal portion of the left distal phalanx. There was no evidence of bone involvement (Fig. 2). Routine laboratory tests revealed normal results: blood cell count, liver function, blood chemistry, serum electrolytes, and parathyroid hormone.

Under digital block anesthesia with lidocaine, the overlying skin was completely excised. The calcified mass was then easily separated from

the surrounding tissues. Histological findings revealed that a round cartilaginous nodule was situated in the dermis, deep in the tip portion of the distal phalangeal bone, between ventral corium and the dorsal subungual corium of the skin. It consisted of a sharply demarcated, mature hyaline cartilage that changed gradually into cancellous bone and which was more pronounced at the center than at the periphery of the tumor lobule. Bone marrow inside the cancellous bone was devoid of hematopoietic cell-lines (Figs. 3 and 4).

#### DISCUSSION

Osteochondroma is a benign neoplasm that arises most commonly at or near the ends of long bones. The occurrence of osteochondroma in soft tissue is however rare. Chung & Enzinger (1) employed the term soft part or extraskelatal chondroma for small and well-defined solitary nodules of hyaline cartilage that are unattached to bone and occur primarily in the distal extremities, especially in the fingers and the hand.

Dahlin & Salvador (2) insisted that virtually all of their series of cartilaginous tumors of the hands or feet were of synovial origin. Chung & Enzinger (1) pointed out that all the tumors in their series, manifested as a solitary nodule, were closely associated with a tendon sheath, joint capsule, or periosteum. In our case, however, no synovial tissue was identified histologically. The reported recurrence rate varies from 5% (3) to 18% (1), so careful clinical follow-up is important.

Two points are of note in this case: (1) Site and shape took the position of extruding "phalanx distalis" of the left thumb, which does not normally exist except as an anlage or a vestige. (2) Histological findings show an organic composition, general similar to the phalangeal bone, although the articulate position between the two phalanges was unclear. As no previous trauma had been reported the tumor might in this case have a hamartomatous pathogenesis.

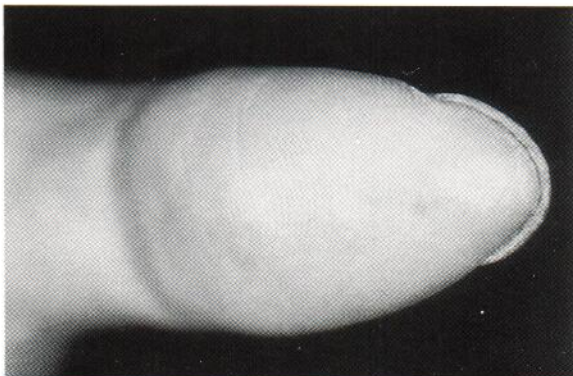


Fig. 1. A white tumor protruding at the tip of the left thumb.



Fig. 2. Roentgenogram of the thumb.

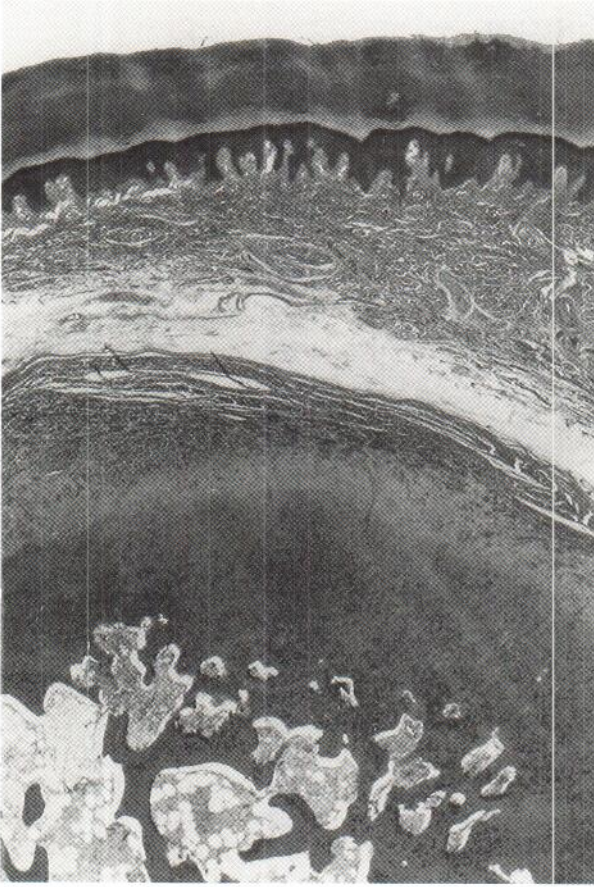


Fig. 3. Mature hyaline cartilage and cancellous bone formation into the center (Hematoxylin-eosin stain,  $\times 66$ ).

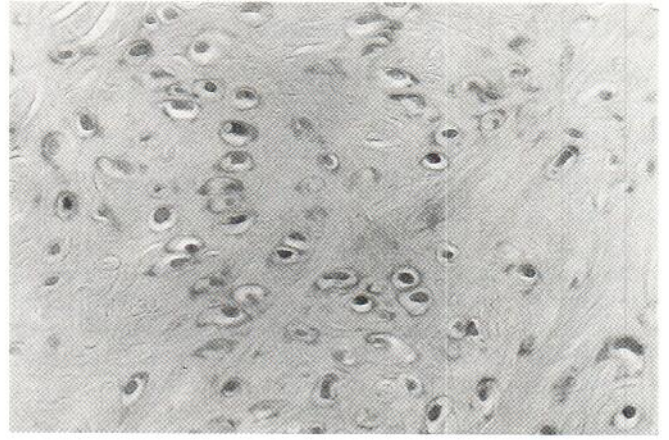


Fig. 4. Middle magnification shows mature hyaline cartilaginous cells (Hematoxylin-eosin stain,  $\times 100$ ).

#### REFERENCES

1. Chung EB, Enzinger FM. Chondroma of soft parts. *Cancer* 1978; 41: 1414-1424.
2. Dahlin DC, Salvador AH. Cartilaginous tumors of the soft tissues of the hands and feet. *Mayo Clin Proc* 1974; 49: 721-726.
3. Shellito JG, Dockerty MB. Cartilaginous tumors of the hand. *Surg Gynecol Obstet* 1948; 86: 465-472.