Published online: 2019-12-31

Granular cell tumour of the hand

Sir,

Granular-cell tumours of the hand are exceedingly rare. The differential diagnosis for these extremely rare nerve tumours includes the more common neurofibroma and schwannoma, which cannot be differentiated on

clinical grounds or by imaging.[1]

A 9-year-old female child was referred with a slow-growing swelling which had been present for at least 5 years on her left ring finger [Figures 1a and b]. X-ray showed soft tissue enhancement without any bony changes [Figures 2a and b]. She complained of dull aching pain over the swelling for the past 1 year. She denied a history of other masses and could recall no undue trauma to her hand. Physical examination was negative except for the presence of a very firm, slightly tender, oblong mass located on the lateral aspect of the left ring finger at distal interphalangeal joint level. No other masses were found. At surgery, the tumour was readily located subcutaneously. It was well defined, quite firm, yellowish-white in colour, and approximately 2 cm by 1 cm in size involving the neurovascular bundle extending up to the volar plate. Since the tumour was involving the terminal portion of the ulnar digital nerve, the nerve could not be reconstructed. Histological study of the mass revealed multiple bundles of cells arranged basically in a parallel fashion. The cells were uniform in size and shape. The cytoplasm contained small eosinophilic granules which were periodic acid-Schiff stain positive. The nuclei were uniform, moderately dark staining, and spindle shaped [Figure 3]. No malignant degeneration was seen. Postoperatively, the hand incision healed uneventfully [Figure 4] with minimal area of sensory deficit on the ulnar aspect of left ring finger pulp region, and 9 months later there had been no recurrence of the tumour.

Two-thirds of cases are reported in women, and two-thirds of cases are reported in Black population. It most commonly occurs between the fourth and sixth decades of life.[2] The head and neck areas are affected in 50% of cases, and of these, 70% are located interorally (tongue, oral mucosa and hard palate). The cutis and the subcutaneous tissue are affected in 30% of cases, the

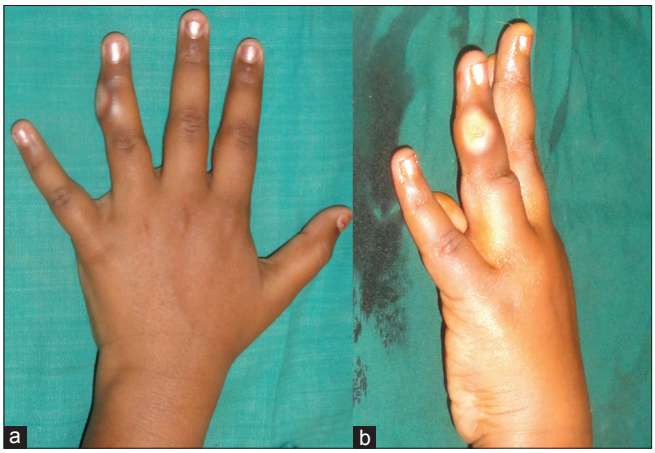

Figure 1: (a) Preoperative dorsal view of hand; (b) preoperative picture ulnar side view of the left ring finger

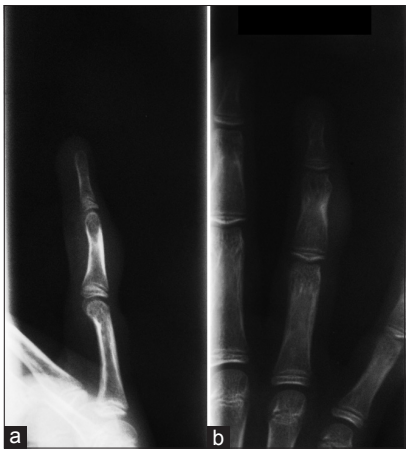

Figure 2: (a) X-ray lateral view left ring finger; (b) X-ray antero-posterior view left ring finger

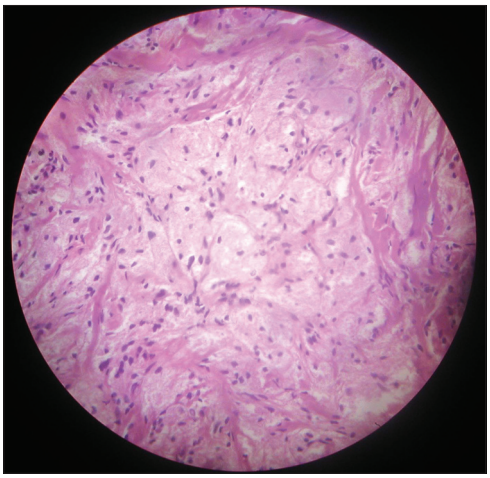

Figure 3: Large tumour cells with granular cytoplasm – High power view

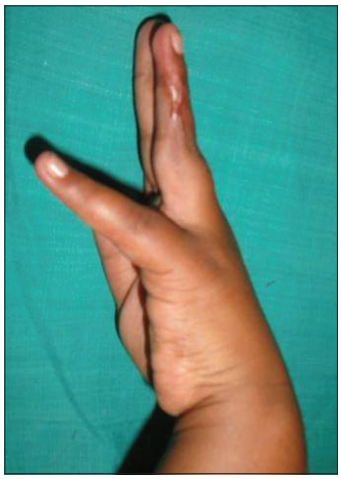

Figure 4: Late postoperative ulnar side view of the left ring finger

breasts in 15% and the respiratory system in 10% of cases. Only 1–3% of all reported cases are malignant.[3] Even though the true recurrence rate following resection is unknown, wide resection of the tumour when it occurs in a digital nerve is recommended by Slutsky[1] based on its propensity for local recurrence. The use of radiotherapy and chemotherapy is advisable only in treating the malignant forms of such tumours.[2]

This report of granular cell tumour is to draw attention to the management of the granular cell tumour and the need for an understanding of the condition.

Pradeoth M. Korambayil

Sushrutha Institute of Plastic, Reconstructive and Aesthetic Surgery, Elite Mission Hospital, Koorkenchery, Thrissur, Kerala, India

Address for correspondence:
Dr. Pradeoth M. Korambayil, Consultant Plastic Surgeon, Sushrutha Institute of Plastic, Reconstructive and Aesthetic Surgery, Elite Mission Hospital, Koorkenchery, Thrissur - 680 007, Kerala, India.
E-mail: pradeoth@gmail.com

REFERENCES

1. Slutsky DJ. Granular cell nerve tumor in the hand: Case report. J Hand Surg Am 2009;34:1512-4.
2. Tamborini F, Cherubino M, Scamoni S, Valdatta LA. Granular cell tumor of the toe: A case report. Dermatol Res Pract 2010;2010:3.
3. Becelli R, Perugini M, Gasparini G, Cassoni A, Fabiani F, "Abrikossoff's tumor,". J Craniofac Surg 2001;12:78-81.

Access this article online

Quick Response Code:

Website: www.ijps.org

DOI: 10.4103/0970-0358.96600