International Journal Dental and Medical Sciences Research
Volume 3, Issue 3, May - June 2021 pp 572-573www.ijdmsrjournal.com ISSN: 2582-6018

Sclerosing variant of Granular Cell Tumour- A Rare Presentation

Dr.Anitha Das P.H[1], Dr. I. Praseeda[2], Dr.MeenaAsokan[3]

1.Associate Professor of Pathology. Travancore Medical College Hospital, Kollam, Kerala, India.
2.Professor and Head of Pathology. Travancore Medical College Hospital, Kollam, Kerala, India.
3.AssociateProfessor of General Surgery. Travancore Medical College Hospital, Kollam, Kerala, India.

Submitted: 05-06-2021 Revised: 18-06-2021 Accepted: 20-06-2021

ABSTRACT: Granular cell tumour is a benign soft tissue tumour with a neural origin. They often present as painless nodule most commonly in the head and neck region with tongue being the most common location. Here we are presenting a case of Sclerosing variant of Granular cell tumour in a 16 year old girl presenting as a painful shoulder swelling

KEYWORDS: Granular cell tumour, Sclerosing variant.

I. INTRODUCTION

Granular cell tumour also known as Abrikossoff's tumour is a benign neoplasm first described byAbrikossoff in 1926.[1]Both females and males are affected but classically found in females in 3rd to 5thdecades.They present as slowly growing painless nodules in skin, oral cavity, digestive tract and subcutaneous tissue; the tongue isthe most common location.[2]Malignant transformation is rare but reported. A case of Sclerosing variant of Granular cell tumour is reported here for its rarity.

II. CASE REPORT

A 16-year old girl presented with pain and swelling overthe posterior aspect of the right shoulder. On examination a 2x1 cm swelling noted on the posterior aspect ofthe right shoulder, tenderness was present..

Ultrasonography done and a diagnosis of lipoma was given. Biopsy was done and we received two partially skin covered fibrofatty tissues the larger measures 1.5cm and the smaller measures 1 cm in diameter. Cut section showed poorly circumscribed grey white firm lesion measures 0.7cm and 0.6 cm.

On microscopy, sections showed poorly circumscribed moderately cellular neoplasm composed of sheets and nests of polygonal cells with abundant eosinophilic granular cytoplasm with coarse granules and vesicular nucleus. Variable sized fibroblasts and collagen bundles were seen admixed. Entrapped appendages, congested blood vessels and scattered lymphocyte collections werenoted.On Immunohistochemistry study the granular cells showed strong nucleus and cytoplasmic positivity for S-100 marker. With the morphological and immunohistochemical findings a diagnosis of Granular cell tumour, sclerosing variant was given and follow up was suggested.

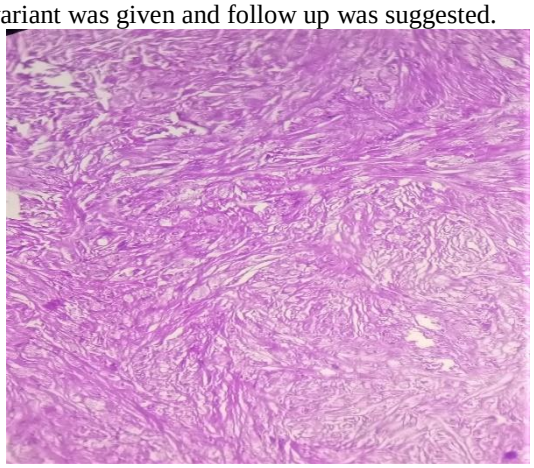

Fig1: Granular cells admixed with collagen bundles

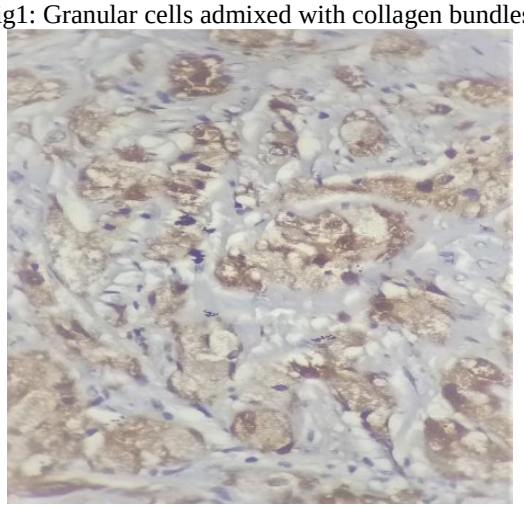

Fig2: S-100 positive Granular cells.

III. DISCUSSION

Granular cell tumour isan uncommon neoplasm of neural origin affecting skin and internal organs. More common in females in the 3rd to 5th decades.[3] Granular cell tumour usually present as solitary, firm raised nodule with rough surface and usually remains asymptomatic but sometimes presents with pruritis and tenderness.[4]The best radiological modality for characterisation is Magnetic Resonance Imaging(MRI).[5]

Histopathological examination is necessary for diagnosis and reveals large cells with indistinct cell borders and eosinophilic granular cytoplasm. In Sclerosing variant variable sized fibroblasts and collagen bundles are seen admixed. The characteristic granularity is due to the accumulation of lysosomes.[6]Various neoplastic and non neoplastic lesions like Basal cell carcinoma, fibrous papules, Dermatofibromas,Dermatofibrosarcomas, Adnexal tumours, Leiomyomas and Ameloblastomas have granular cell variants hence when granular cell change is noted a careful evaluation of clinical, histological and immunohistochemical findings is required for an accurate diagnosis.[2]

0.5-2% of cases are malignant and can metastasise.[7]

The following factors are highly indicative of malignant change-size>5cm, deep seated lesion at extremities, older age, female gender, rapid recent growth, recurrence and metastasis.[5,8]

Malignant and benign granular cell tumours can be differentiated through proper clinical examination and by using Fanburg-Smith criteria which includes necrosis, spindling of cells, vesicular nuclei with large nucleoli, increased mitosis, High Nucleo-cytoplasmic ratio and pleomorphism,[9]

Wide local excision is considered as the best treatment. Benign Granular cell tumour has an excellent outcome after surgical excision. Follow up of all patients with Granular cell tumour is mandatory to check for recurrence and metastasis.[10]

REFERENCES

[1]. Gunduz O, Erkin G, Bilezikci B, Adanali G. Slowly growing nodule on the trunk:cutaneous granular cell tumour. Dermatopathology 2016;3:23-27

[2]. Michael A CARDIS, Jonathan MI, Jag BHAWAN. Granular cell differentiation:Areview of the published work.The Journal of Dermatology 2017;44:251-258.

[3]. Barry Rose, George S. Tamvakopoulos, Eric Yeung, RobinPollock, JohnSkinner, Timoth yBriggs, and StevenCannon.Granular cell tumours-A rare entity in the musculoskeletal system.Hindawi,Sarcoma;Volume 2009, Article ID 765927.

[4]. TirthankarGayen,AnupamDas,KaushikShom e, DebabrataBandyopadhayay, Dipti Das, BantiSaha. Granular cell tumour:An uncommon benign neoplasm. Indian J Dematol 2015 May-June;60(3):322.

[5]. M F Blacksin, L.M White, M Hameed, R Kandel, F.R Patterson, and J. Benevenia.Granular cell tumour of the extremity:magnetic resonance imaging characteristics with pathologic correlation. Skeletal Radiology,vol 34,no-10,pp.625-631,2005.

[6]. Calonje E, Brenn T, Lazar A, McKees Pathology of the skin: With clinical correlations,5thedition.Amsterdam: Elsevier/Saunders, 2018

[7]. Elkousy H, Harrelson Dodd L, Martinez S, Scully S. Granular cell tumours of the extremities. ClinOrthopRelatRes.2000;(380):191-8.

[8]. Rekhi B, JambhekarNA.Morphologic spectrum, immunohistochemical analysis and clinical features of a series of granular cell tumours of soft tissues:a study from a tertiary referral center.Ann DiagnPathol.2010;14:162-167.

[9]. Fanburg –Smith JC, MeisKindblom JM, Fante R, KindblomL G. Malignant granular cell tumour of soft tissue:Diagnostic criteria and clinicopathological correlation. Am J Surg Pathol.1998;22:779-94.

[10]. VivekAjith Singh, JayaletchumiGunasagaran, JayalakshmiPailoor. Granular cell tumour :malignant or benign?.Singapore Med J.2015 Sep;56(9):513-517.