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Abrikossoff tumour – review of epidemiology, morphology and clinical features of the rare tumour

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Abstract

Abrikossoff tumour is the granular cell tumour. This is a type of peripheral nerve sheath tumour that was initially described by Abrikosoff in 1926. It is rare type of tumour classified as a benign lesion. Anatomical localization is very variable. Most are found in the oral cavity, especially the tongue, and the skin and subcutaneous tissue. This article is to review available publication about morphological, epidemiological characteristics features and clinical picture of this tumour.

Key words: Abrikossoff tumour, epidemiology, morphology, clinical features

Introduction

Abrikossoff tumour is common name of the granular cell. The first report about this kind of tumour was published in 1926 by the Russian pathologist Aleksiej Abrikosow who, by the way was probably responsible for the embalming corpses of Lenin [3]. He used the term "granular cell myoblastoma", to be derived from muscle [1]. In 1935, Feyrter postulated that these tumours had a neural origin, what was confirmed by Fust and Custer in 1948 and named as granular cell neurofibroma [4]. It is rare type of tumour classified as a benign lesion. The exact

epidemiology has not been investigated. Anatomical localization is very variable. Most are found in the oral cavity, especially the tongue, and in the skin and subcutaneous tissue [2].

Aim of the study

This article is to review available publication about morphological, epidemiological characteristics features and clinical picture of this tumour.

Description of knowledge

Epidemiology

Granular cell tumours (GCT) are more common in women, and most occur between the ages of 20 and 50 years with a peak incidence around the fourth decade of life [5].However some authors report that they occur at all ages and with no preference for gender [6]. Some authors suppose that it is probably more common in Afro-Americans. Formation of the lesion is for relatively brief duration (average less than 6 months), but sometimes it can be congenital. Congenital form present at birth on labial aspect of dental ridge is called epulis [7].

The majority of tumours occur in the head and neck region - 50% of all cases occur in the head and neck area, especially in the tongue [6,8]. Although tongue was the single most common anatomic site involved, but relatively more occurred in skin or subcutaneous tissue [6]. Less common locations were breast parenchyma, rectal mucosa and anus, vulva, oesophagus, larynx, trachea, urinary bladder, clitoris and the penis, gastro-intestinal tract. [5-7, 9-11]. Authors reports that multiple lesions are common in approximately 10% of cases [11]. Malignant granular cell tumours are very rare, accounting for only 1–3% of all diagnosed GCT s [12].

Morphology and clinical image

It is difficult to determine the margin of the tumour because it used to be not encapsulated but the diameter of the tumour is usually up to 5cm, average 1,5 cm [6]. The lesion is solid and nodular shape with a pale yellow-tan appearance sometimes with ulceration so makes it difficult to distinguish from malignant lesion especially from squamous cell carcinoma [13] [14]. Very often the tumour is discovered during routine examination because it is asymptomatic and painless. Sometimes it is related with pain and pruritus [15].

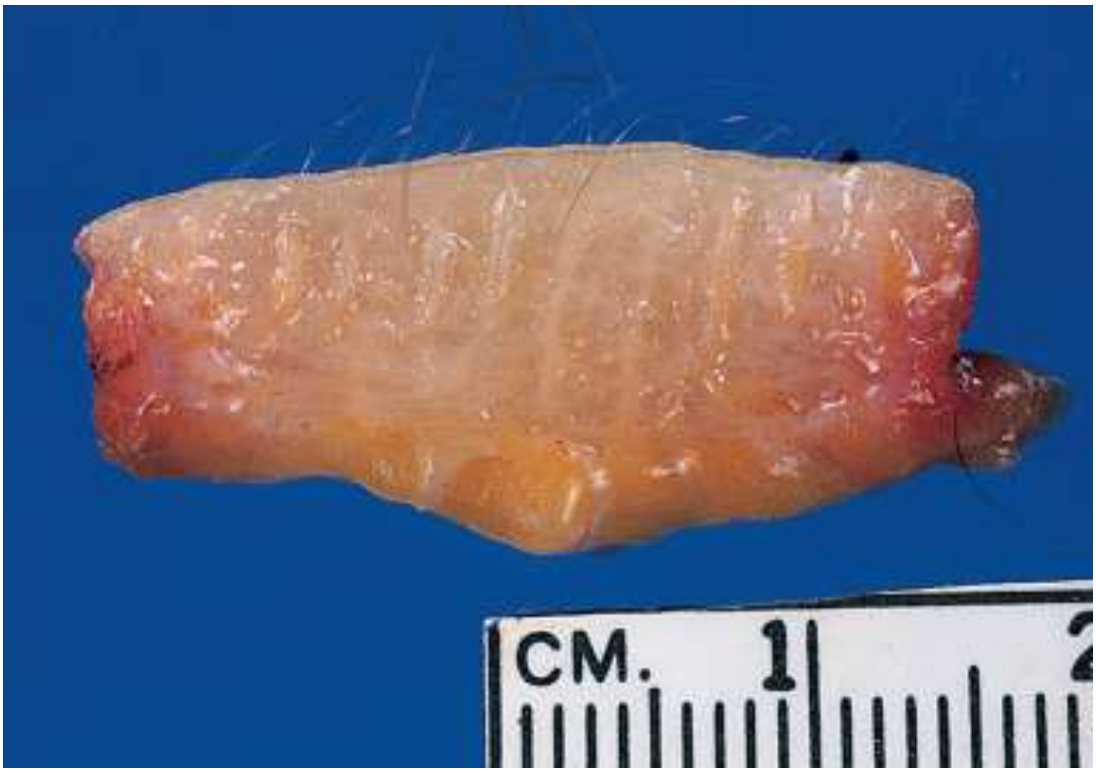

Fig. 1 Granular Cell Tumor of Skin [13].

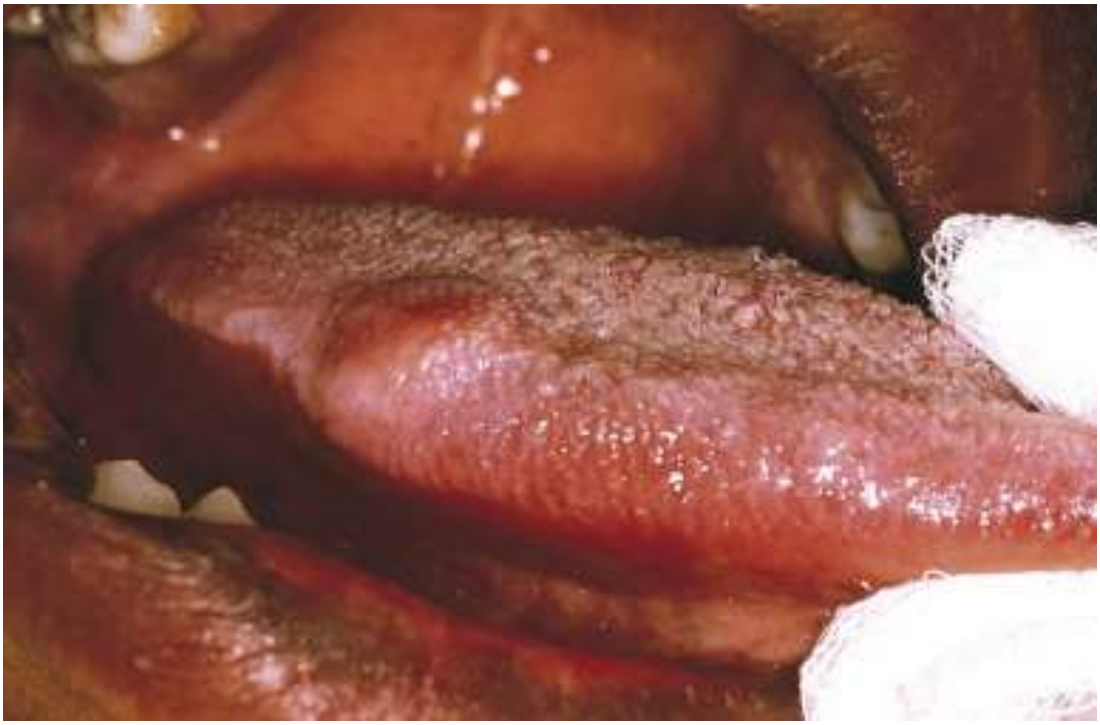

Fig. 2 Granular cell tumour of the tongue [13].

The large polygonal cells have abundant, granular, faintly eosinophilic cytoplasm with round, dark nuclei [16]. The majority of granular cell tumours express S100 protein, PGP9.5 (neuron-specific peptide), neuron-specific enolase, and nerve growth factor receptor [17]. Some authors reports that increased numbers of mast cells are present in some cases [18] GCT very often is associated with hyperplasia of the overlying epithelium so it can cause difficulties to differentiate from SCC [19].

Therapy and prognosis.

Treatment of granular cell tumour is local radical surgical excision of the lesion. Prognosis is good, rare recurrence if it was incompletely removed. In very rare malignant variant rare there is risk of spread to lymph nodes, lungs. In fact of congenital GCT, complete regression without therapy has been reported. [20]

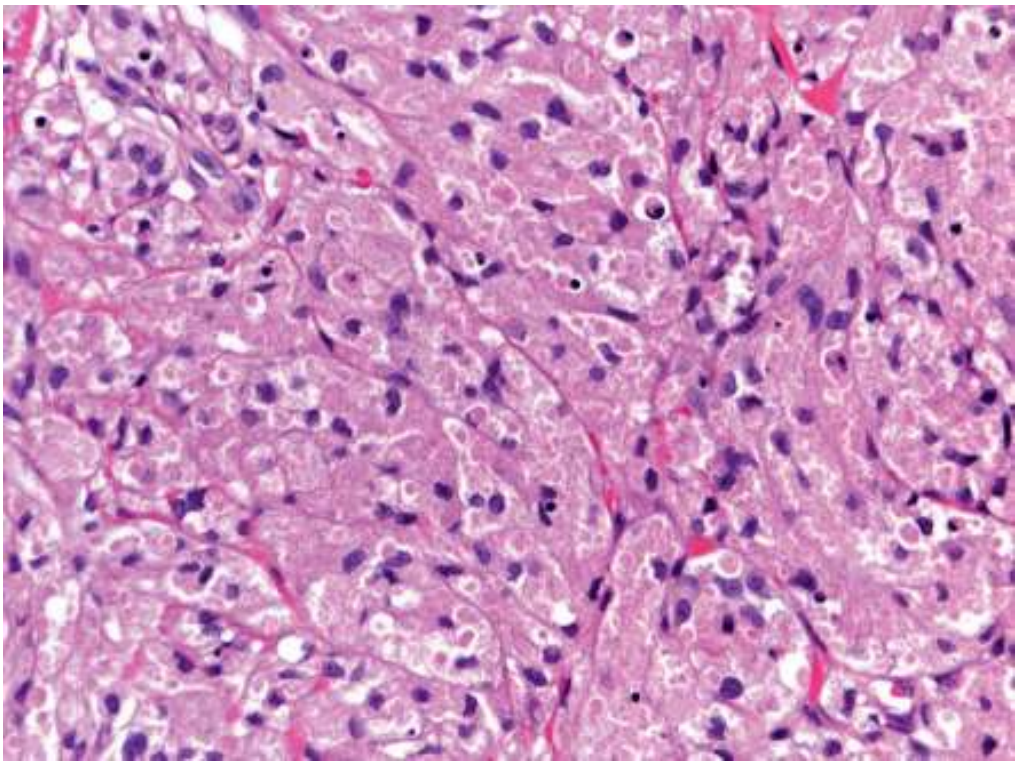

Fig. 3 Granular cell tumour [18].

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