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Granular cell tumour (Abrikossoff's tumour) of the rectum – case report and review of the literature

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GUZ ZIARNISTOKOMÓRKOWY (GUZ ABRIKOSOWA) W ODBYTNICY – OPIS PRZYPADKU I PRZEGLĄD PIŚMIENNICTWA

Streszczenie

Guz ziarnistokomórkowy (GCT), guz Abrikosowa (AT), myoblastoma (My) jest rzadko rozpoznawanym łagodnym lub złośliwym nowotworem tkanek miękkich, który był po raz pierwszy opisany przez Aleksieja Abrikossoff w 1926 roku. Guz ten jest zlokalizowany głównie w regionie głowy i szyi. Autorzy tego artykułu przeszli bazę PubMed i nie znaleźli opisanego przypadku guza Abrikosowa w odbytnicy. W poniższym artykule autorzy przedstawili przypadek 40-letniego mężczyzny, który został przyjęty do szpitala z powodu polipa odbytnicy. Pacjent został poddany poliipektomii z użyciem rektoskopu operacyjnego (TEM – ang. *ransanalendoscopic microsurgery*), a w drugim dniu po operacji został wypisany do domu. W badaniu histopatologicznym rozpoznano łagodnego guza Abrikosowa.

Słowa kluczowe: guz ziarnistokomórkowy, guz Abrikosowa, odbytnica, rozpoznanie, leczenie

INTRODUCTION

Granular cell tumour (GCT), Abrikossoff's tumour (AT), myoblastoma (My) is a rare benign or malignant neoplasm which was first time described by Aleksiej Abrikossoff in 1926 (1). The histogenetic origin and etiology of this tumour is not yet well known. Now, it is believed that Abrikossoff's tumor derived from Schwann cells, and is considered to be neoplasm of neural origin. This tumor occurs most often in the 4 and 5 decade of life. Most granular cell tumor is located in the head and neck region (2). The majority of the granular cell tumours present benign histopathological features (3, 4).

CASE REPORT

A 40-year-old man, Caucasian race, was admitted to the hospital because of rectal polyp which diameter was 15 mm. He had history of bleeding from internal hemorrhoids. The patient underwent Milligan-Morgan hemorrhoidectomy 6 months earlier.

Because of rectal polyp the patient was admitted to the surgical ward to polypectomy by transanal endoscopic microsurgery (TEM). Laboratory tests were normal.

The patient was qualified for surgery. The rectal polyp was removed by transanal endoscopic microsurgery (TEM) and was sent to pathological examination. The duration of surgery was 10 minutes. Patient after

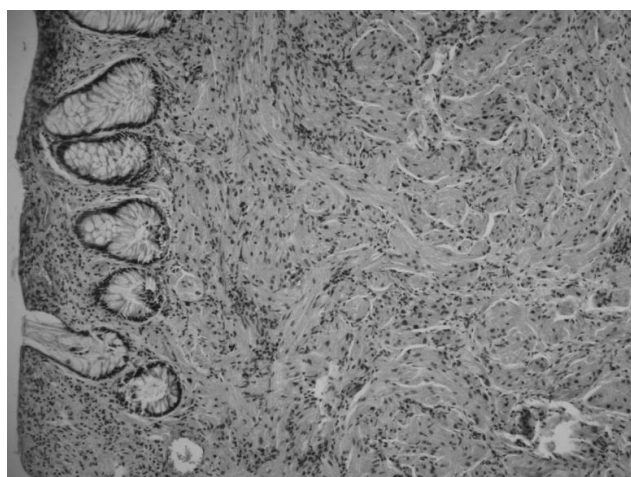


Fig. 1. Granular cell tumor (Abrikossoff's tumour). Hematoxylin and eosin stain; original magnification, x 100.

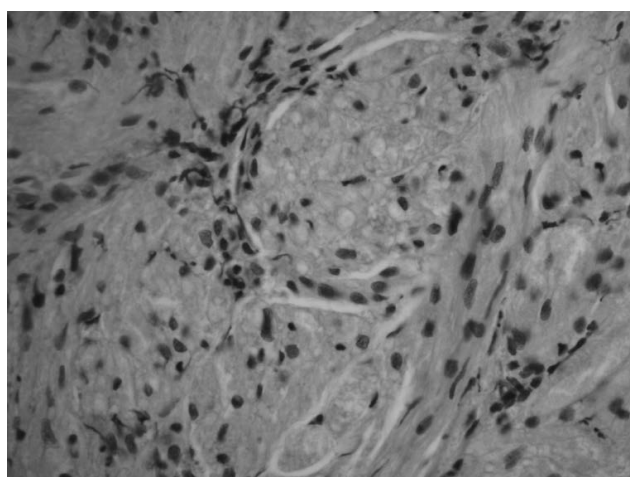


Fig. 2. Granular cell tumor (Abrikossoff's tumour). Hematoxylin and eosin stain; original magnification, x 400.

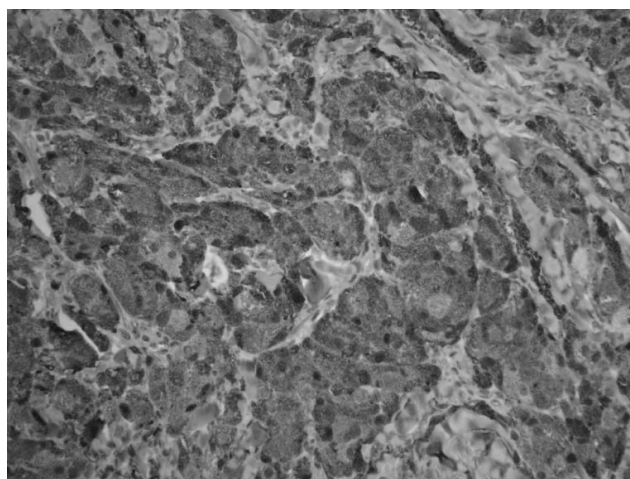


Fig. 3. A positive immunohistochemical reaction for S-100 protein. Immunoperoxidase stain for S-100 protein; original magnification, x 200.

surgery felt good and did not complain of pain. The postoperative period was uncomplicated and the patient left the ward in the second day after operation. Pathological examination showed benign Abrikossoff's tumour (fig. 1-3). Immunohistochemical analysis show: protein S-100 (+), low (1%) proliferation index of Ki-67, CD 34 (-), desmin (-), wimentin (+). The patient is in the care of outpatient surgical and the recurrence of tumor after 2 years was not observed.

DISCUSSION

Abrikossoff's tumour is observed three times more in women than in men (4). Black population suffer from this neoplasm three times more than whites (4). Familial cases of granular cell tumor are reported rare (5). There are estimated that 45-65% of all cases of granular cell tumours are located in the head and neck region (2, 4). The tongue is the most common location of this tumour 23-28% (4). Abrikossoff's tumour was reported in the bile duct, oesophagus, stomach, skin and female reproductive organs (2, 4).

Granular cell tumor mainly occurs as a single tumour (4, 6, 7). Synchronous and asynchronous forms, multiple tumours are present in 5-16% cases (4, 6). The majority of Abrikossoff's tumours present benign histopathologic features. Surgery is essential treatment of these tumours. The recurrence in case of benign tumour is extremely rare (4).

Only 1-2% of these tumours present malignant form (7). It is difficult to make a perfect diagnosis of malignancy in Abrikossoff's tumours based only on pathological examination. There is currently no agreed precise criteria for the diagnosis of malignant granular cell tumor. The majority of tumours present positive diffuse of S-100 protein (4). It has been proved that the high value of the proliferative index of Ki-67 and p53 protein expression may correlate with malignant clinical course. Tumours which do metastasize show cellular pleomorphism, mitotic activity and spindling (9). Also rapid growth, invasion of adjacent structures and size greater than 5 cm suggest malignant type (9). Malignant Abrikossoff's tumours are present more common in African American women and with mean age from 40 to 48 years (10-13). Malignant tumours metastasize to regional lymph nodes, brain, bones and lungs (10-12). In case of malignant granular cell tumours only wide excision with 2-3 cm of margin is effective treatment (4, 7, 12, 13). 32-41% malignant tumours present developed local recurrence, and 50-63% present distant metastasis (13). There is little information about radiation or chemotherapy in malignant Abrikossoff's tumours (8).

There was written only one case of mother and son who were suffered from multiple granular cell tumours in childhood (5).

Clinical aspects can differentiate benign and malignant Abrikossoff's tumours. The follow-up play important role in efficient management after surgical treatment.

CONCLUSIONS

Granular cell tumor is a rare neoplasm of soft tissue. Majority of granular cell tumors presents benign histopathologic features.

Surgical treatment is basic treatment of this neoplasm. The follow-up play important role in efficient management after surgical treatment. □

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received: 08.04.2014
accepted: 15.05.2014

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