

## Case report

## PERIOCCULAR METASTASIS ASSOCIATED WITH COLORECTAL CARCINOMA

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### ABSTRACT

**Purpose:** To present a case of a 69-year old woman with periocular metastatic disease.

**Methods:** Standard ophthalmic examination combined with CT and PET/CT imaging, surgical excision of the tumour and histopathological and immunohistochemical examination.

**Results:** Patient presents with large solid lesion in left lateral eyelid angle. After surgical excision histopathological examination shows metastatic moderately to poorly differentiated rectal adenocarcinoma. PET/CT shows whole body subcutaneous metastases. Patient receives chemotherapy and eighteen months after eyelid surgery is without local recurrence.

**Conclusions:** Periocular metastasis can present with nonspecific features and should be considered in patients with known systemic malignancy. Treatment and follow up of these patients is multidisciplinary team work.

**Key words:** periocular metastasis, eyelid metastasis, metastatic colorectal carcinoma, spontaneous healing

### INTRODUCTION:

Metastases to the eyelids and periocular area are rare, with incidence less than 1% of all malignant eyelid tumours [1]. Wang JK et al. reported incidence of these tumours of 0,8% of all malignant lesions [2]. The review of the literature shows eyelid metastasis arises from breast [3], thyroid [4] and lung [5]. There are also reports about eyelid metastases from skin melanoma, gastric carcinoma, uveal melanoma and renal carcinoma [1].

### CASE PRESENTATION:

A female 69-year old patient was referred to our clinic with a solid lesion in her left lateral eyelid angle in October 2016. The mass appeared 2 months ago and has been rapidly growing. The patient had a history of breast and colorectal carcinoma. The former was diagnosed in 2006 and mastectomy was performed. The latter was diagnosed and operated in May 2016. The staging of the colorectal carcinoma was pT3N2MxG2-3. The patient received chemotherapy when she was referred to our unit.

On examination, a nodular pink-violet colored solid lesion measured 15 x 15 mm was observed. The tumour was located in the lateral eyelid angle of the left eye, without involving the eyelid margin, but with marked hyperemia and not very prominent edema of the whole lower eyelid. Tumour surface was covered with crusts, small hemorrhages and telangiectasias. (Fig. 1a).

**Fig. 1.** Left lateral eyelid angle tumour - a, one-month post op, after spontaneous healing - b



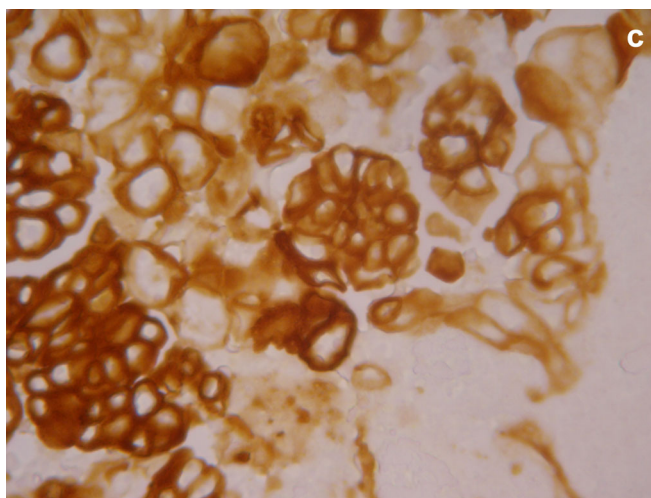
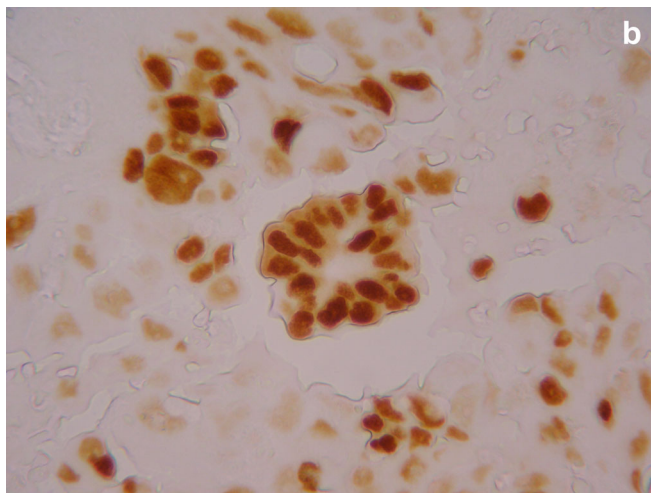
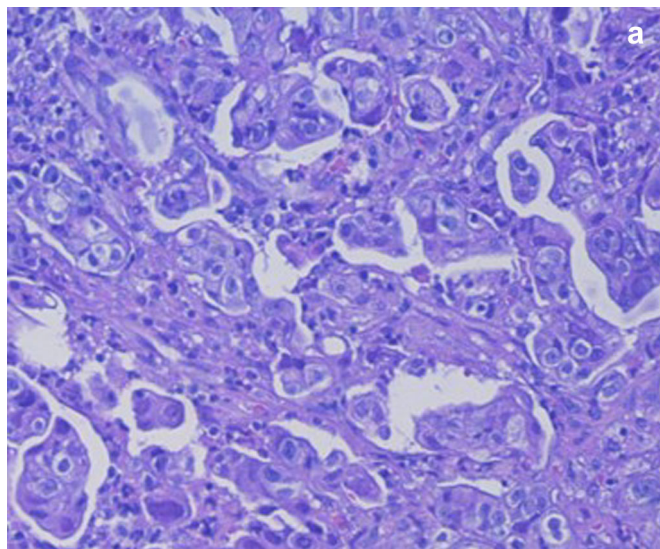
The best corrected visual acuity was 0.8 OD and 0.8 OS. Slit-lamp anterior segment examination was normal for the patient's age, normal IOP was measured. Fundus examination revealed angiosclerotic changes in retinal vessels in both eyes. No palpable preauricular and submandibular lymph nodes were present.

CT scan showed no orbital infiltration from the tumour, no bone destruction and no regional lymph nodes involvement.

During the surgery a crumbly, greyish-white tumour was observed, extending subcutaneously over the zygomatic bone. Because of unusual tumour texture and impossible radical excision on this stage, a decision for delayed repair after histopathological evaluation was taken. Post-operative periocular defect was with diameter 20 mm and depth near the bone. The patient was treated with antibiotic ointment and dressing.

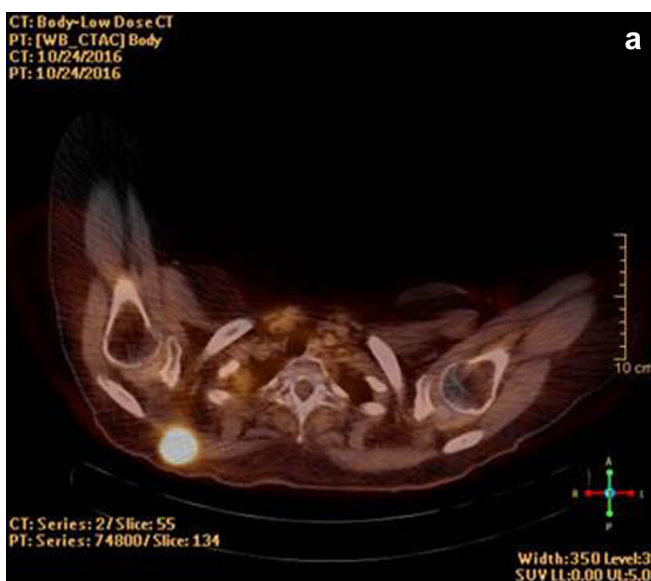
According to histopathological report, the tumour was invasive, micropapillary adenocarcinoma most likely metastatic (Fig. 2a). Immunohistochemistry showed metastatic moderately to poorly differentiated rectal adenocarcinoma (Fig. 2b, c).

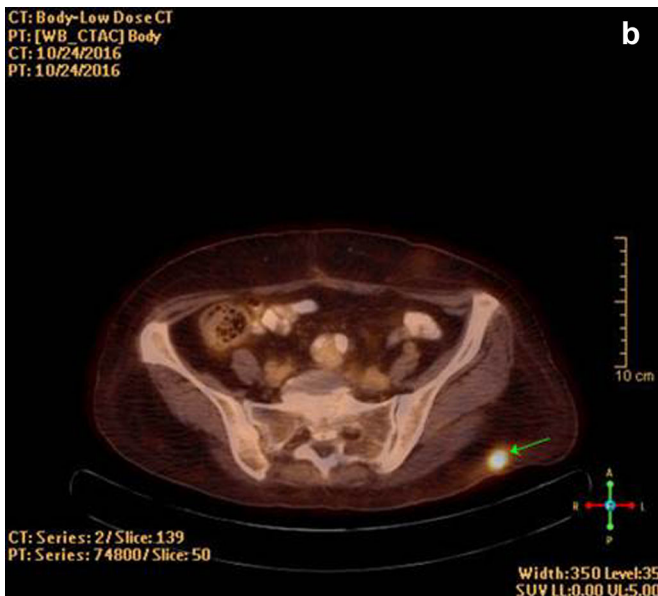
**Fig. 2.** Solid material from tumor in left lateral eyelid angle: **a** – metastasis from micropapillary rectal adenocarcinoma, Hematoxylin and eosin (H&E) staining, x100, **b** - CDX-2 – nuclear expression in tumor cells, x200, **c** - CK20 – cytoplasmic expression in tumor cells, x200



PET/CT shows whole body subcutaneous metastases (Fig. 3).

**Fig. 3.** PET/CT images of subcutaneous metastases, **a** – right scapular area, **b** – left gluteal area

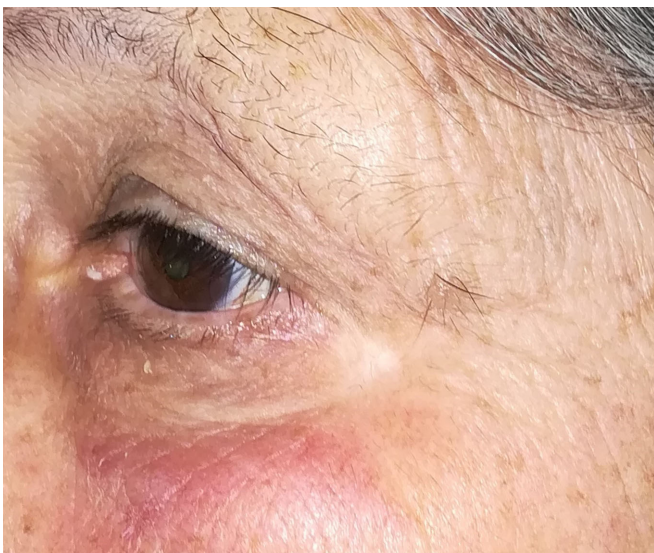




Oncological committee concluded that no additional extend of the excision in left lateral periocular area was needed. One month post op surgical defect had spontaneously healed (laissez-faire healing) (Fig. 1 - b). Patient continued receiving chemotherapy for colorectal adenocarcinoma and was followed up by a multidisciplinary team.

Eighteen months after periocular surgery the patient is without local recurrence and in very good general condition. (Fig. 4)

**Fig. 4.** Left lateral eyelid area, 18 months postoperatively



## DISCUSSION:

Periocular metastatic tumours are very rare. Eyelid metastases can present as painless nodules, diffuse eyelid swelling, or ulcerative lesions of both upper and lower eyelids [6]. These features are nonspecific and could lead to delay in diagnosis. Sometimes the lesions could be mistaken with acutely inflamed recurrent chalazion. Metastatic disease should be considered in differential diagnosis of eyelid lesions. Each suspicious lesion should be biopsied and sent for histological examination.

Sometimes eyelid lesions can be an initial sign of systemic malignancy, although this is rare [7, 8]. Additional diagnostic tools such as imaging studies- CT, PET/CT can be used in determining the degree of spreading of the initial process and could help the choice of treatment.

Management of eyelid metastases includes surgical excision, systemic chemotherapy, and observation. In some cases, external beam radiation therapy could be used [1].

In advanced cases with multiorgan spread, palliative measures are needed in order to preserve vision if possible and relieve pain.

Reported case of periocular metastasis of colorectal carcinoma origin could be considered as extremely rare and have to remind us that diseases of the eye and periocular area could be a manifestation of different systemic disorders. In the literature reference in English, we found only one reported case of eyelid metastatic rectal adenocarcinoma in a 26-year-old patient in India [9].

Presented patient is in remission, without relapse eighteen months after surgery. Bianciotto C et al. reports survival rate in patients with eyelid metastasis is 67% in 12 months [1].

## CONCLUSION:

Periocular metastasis can present with nonspecific features and should be considered in patients with known systemic malignancy. Treatment and follow up of these patients is a multidisciplinary team work.

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*Please cite this article as:* Zlatarova ZI, Ilieva AN, Krasnaliev IY. Periocular metastasis associated with colorectal carcinoma. *J of IMAB*. 2018 Apr-Jun;24(2):2030-2033. DOI: <https://doi.org/10.5272/jimab.2018242.2030>

Received: 16/04/2018; Published online: 14/06/2018



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