



CASE REPORT

Metastatic infiltration of adenocarcinoma of the rectum in hard palate: Report of a case and a review of the literature

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KEYWORDS

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Summary A 72 year-old male, seven years later the first diagnosis of rectal adenocarcinoma, referred a trouble in hard palate. Clinical examination evidenced a whitish coloured projecting area, not painful at palpation and with the largest diameter of 2 cm. The first biopsy suggested a neoplastic lesion but it was not resolute for diagnosis. Another biopsy was executed. The second histological report evidenced a neoplastic infiltration of poorly differentiated adenocarcinoma, with mucinous aspects and necrosis. Immunophenotype was compatible with diagnosis of metastasis of adenocarcinoma originated from large bowel. The pathological diagnosis was confirmed by a second pathologist.

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Introduction

Colon–rectum adenocarcinoma shows, today, an increment of incidence, mostly in western countries, while its mortal-

ity is decreasing and overall 5-years survival has significantly increased during the last 10 years.

These results have mainly their basis not only on the early diagnosis with more frequent and selected screening techniques, but also with the interesting results with chemotherapy and now targeted therapies given in adjuvant setting.

However, local relapses and distant metastasis, usually related to poor prognostic scores emerging by the pathological analysis of the primary tumor, represents nevertheless

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the unfavourable event that yet today lowers the enthusiasm deriving from new therapeutic opportunities today available.

Clinical surveillance, in fact, is targeted to early individuation of eventual new lesions in patients with previous colon–rectum adenocarcinoma. Sites which are usually the most affected by metastasis and therefore most investigated are liver, lungs, bone and brain, and obviously the large intestine and locoregional sites for local relapses.

Our study describes the onset of metastasis in an uncommon site, in a 72 year-old man affected by adenocarcinoma of the rectum.

Case report

Our patient is a 72 year-old man. When he was 65, he underwent a colonoscopy. This exam evidenced a large polypoidal-jutting out neof ormation at about 20 cm from anal verge which narrowed intestinal lumen and was extended for 4–5 cm.

Thus he underwent anterior resection of the rectum-sigma completed by anastomosis terminal–terminale rectum–colon. Histological examination of the surgical resection diagnosed a primitive adenocarcinoma of large intestine, which was poor differentiated (G3), infiltrating muscular tunic, without neoplastic spreading of the edges. The eight lymph nodes analysed were intact. The staging was pT2; pN0, M0 (staging investigations were negative), stage I-(A) Dukes'.

Considering the stage, the patient was assigned to routine periodical checks.

About 2 years later, on the occasion of control with rectum-colonoscopy it was evidenced a presence of a polypoidal neof ormation which had a diameter of 2 cm, localised at about 13 cm from anal verge, with the aspect of a congested and eroded mucosa. For this reason the man underwent a surgical rectum–colon resection with colon-rectal terminal–terminale anastomosis. Histological exam described: large bowel section of overall length 12 cm, in which it was present an ulcerated neof ormation extended at about 1.2 cm from anal verge. This lesion at a microscopical evaluation corresponded to moderately differentiated adenocarcinoma, with a mucin component, which infiltrated all thickness of the intestinal wall, reaching the adipose tissue. Surgical edge were intact, the same was for four pericolic lymph nodes-pT3; pN0; M0 (staging investigations were negative), Stage II-(B) Dukes'.

In another hospital the patient was treated with a radio-chemotherapy combined approach which used linear accelerator on pelvis with a overall dose of 50 Gy fractionated in 25 days. This treatment was associated to chemotherapy with 5-fluorouracil (500 mg/m²), in days 1–3 and 29–33.

After this combined approach, the man underwent, in our structure, a chemiotherapeutic treatment with Raltitrexed 3 mg/m², intravenous infusion during 15 min, three-weekly, for 6 cycles.

At the end of this therapy a global clinical control was executed without evidence of relevant pathologies.

Five years later, during the anamnestic interview of a clinical control, the patient referred a trouble in hard palate. The medical examination evidenced a whitish coloured,

hard-elastic consistence, projecting area, which was not painful at palpation and had the largest diameter of 2 cm.

Thus a biopsy was performed on this area and the histological response was: evidence of: "Fibro-connective tissue, partially covered by necrotic material and only focally by malpighian epithelium in which there are mucous lakes and probably glandular structures with exfoliated epithelium. These structures sketch a cribriform attitude with focal areas of necrosis. The reports suggest a neoplastic lesion but are not indicative for a certain diagnosis because of several artefacts".

On the basis of this response a new biopsy of the lesion was performed and the second histological response was: "Mucosal fragment of Malpighian epithelium which is interested by neoplastic infiltration of poorly differentiated adenocarcinoma, with mucinous aspects and necrosis (Figs. 1 and 2). Immuno-histochemical coloration for cytokeratins 7, 20, 19 and for TTF-1 proved positive for cytokeratin 20 and 19 (Figs. 3–5). This kind of immunophenotype is compatible with diagnosis of metastasis of adenocarcinoma originated from large bowel".

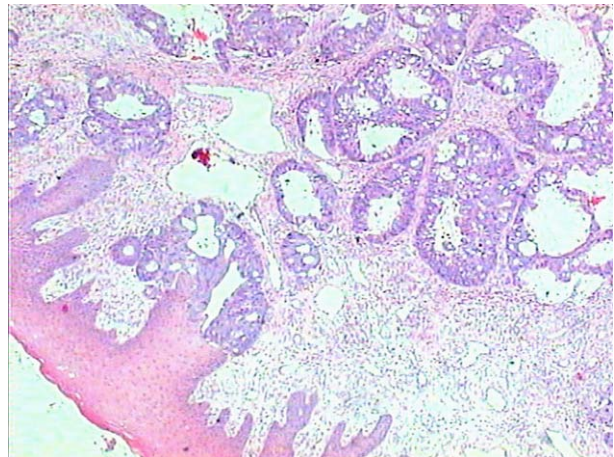


Figure 1 Poorly differentiated adenocarcinoma in mucosal fragment of Malpighian epithelium.

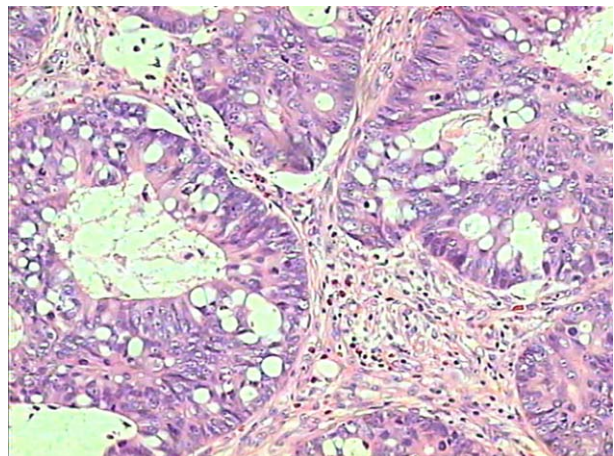


Figure 2 Particular on mucosal glandules of Figure 1.

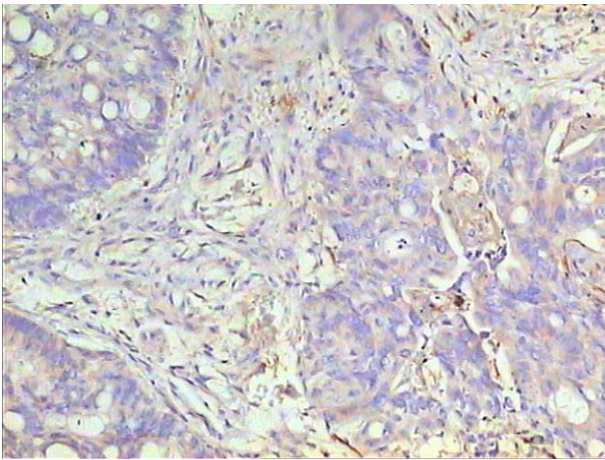


Figure 3 Negative immunohistochemistry of cytokeratin 7, CK7.

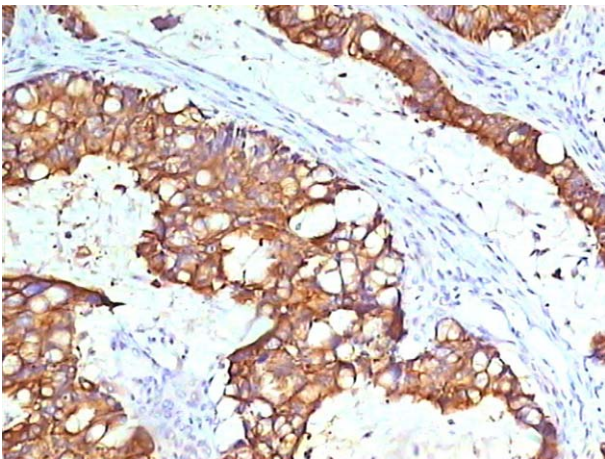


Figure 4 Positive immunohistochemistry of cytokeratin 19, CK19.

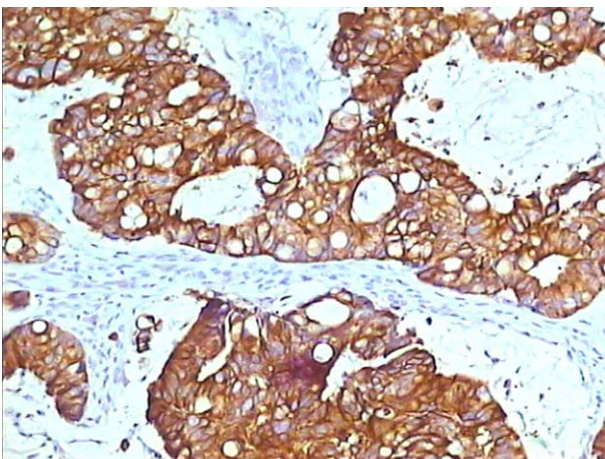


Figure 5 Positive immunohistochemistry of cytokeratin 20, CK20.

Discussion

Metastatic lesions in oral cavity are quite rare. The most frequent localizations are in jaw³ or maxillary;² the most common tumors which metastasize in oral cavity are breast⁴ and pulmonary cancer, even if in literature several cases of oral metastasis from primitive hepatic,³ gastric,^{5,7} bone⁶ and sometimes colon-rectal neoplasias,¹⁸ are reported.

The sites of oral metastasis can be palatine tonsils,^{8–10,14} larynx,¹³ tongue,^{15–17} and finally hard palate^{1,18} as well.

In 1978 a wide literature review was already performed by Zegarely, who found only a case of oral metastasis, in a case record of 422 autopsies in patients with colonic adenocarcinoma.^{1,16}

Back in 1971 Bhaskar reported the incidence of oral metastatic tumors as first sign of the presence of a primitive neoplasia in 33% of the cases.²

In 1970 also Bertelli reported that 1% of all oral malignants were metastatic tumor in jaw and that 70% of those were adenocarcinomas.¹¹

Clausen and Polsen investigated on 97 cases of jaw metastasis, and only 6% were originated from colon–rectum cancer.¹²

Solomon in a review investigated 60 cases of oral soft tissue metastasis: the 5% of these ones originated from colon, while in the largest part there were lesions from pulmonary cancers (27%).¹⁹

Moreover metastatic lesions in oral cavity could clinically mimic benign formations, such as fibromas, large cells granulomas or a periodontal abscess.²⁰ In fact Moffat reported a case of a patient, affected by moderately differentiated rectal adenocarcinoma, who presented an ulcerative lesion in alveolar molar region.¹² This case report and the experience of the literature suggest that the oral metastases arising from a colorectal neoplasia is a very rare site of relapse mostly when other metastatic localizations are not present. This is a surprising event because the clinician waits for a relapse of the tumor in most frequent sites like liver, peritoneum, pelvis, lung. Moreover the general practitioner, the stomatologist, the same oncologist directs the diagnosis toward a primitive lesion of the oral cavity also in patients in follow up for a gastrointestinal neoplasia; this mistake is frequently the reason for a delay of the diagnosis and for a inappropriate surgical approach to the lesion, often performed by stomatologist with poor experience in oncology surgery of the oral cavity.

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