Tonsillar metastasis revealing signet-ring cell carcinoma of the rectum
A case report

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SUMMARY
A 45-year-old man presented with a tonsillar tumor and rectal syndrome. Histology specimens revealed signet-cell adenocarcinoma of both the tonsils and rectum. The clinical course was rapidly degenerated with multiple metastases in the skin and bones. Tonsillar metastasis is rare and generally develops from primary gastric or colorectal cancer, predominantly poorly-differentiated or signet-ring cell adenocarcinomas.

Case report
A 45-year-old man with an uneventful personal and family history presented with cervical lymph nodes and had difficulty in swallowing. He also complained of false urge to defecate and bloody stools. Physical examination revealed an ulcerated tumor located on the left tonsil (figure 1), and several enlarged fixed cervical nodes. The patient’s weight remained stable despite anorexia. At digital examination, the rectum was fixed with an abnormal consistency. Biological tests were normal. Colonoscopy revealed a circular tumor more than 15 cm high. CT-scan of the chest and abdomen revealed intrabdominal lymph nodes on the lateral aortic chain with no identified visceral metastasis or mediastinal lymph nodes. Gastric endoscopy was normal.

Biopsies were taken for histological examination and revealed similar features regarding the tonsil and rectum, namely poorly differentiated cells in clusters of various sizes or scattered independently or in rows. The cytoplasm of the tumor cells harbored vacuoles containing PAS- and alcian blue-positive mucus distinctive of signet-ring cells (figure 2). At immunohistochemistry, the cells were negative for synaptophysin, CD56, and anti-PSA and anti-TTF1 antibodies. They were also negative for cytokeratin (CK) 7, but rare cells expressed CK20 (figure 3). The final pathological diagnosis, for both the tonsillar and rectal specimens (figure 4).

Patient received chemotherapy (FOLFOX6: oxaliplatin 100 mg/m^2/2 h D1 plus leucovorin 400 mg/m^2/2 h D1, FU 400 mg/m^2 bolus D1 and continuous infusion of 5FU 2 400 mg/m^2/44 h – every 2 weeks) coupled with radiation centered on the rectum (45 GY in 5 weeks). Anterior resection of the rectum without colostomy was performed due to the lack of objective tumor response (tonsillar and rectal). Surgery was followed by concomitant chemotherapy and radiotherapy centered on the tonsillar tumor remnant and the jugulo-carotid and sub-mandibular lymph nodes. Unfortunately, the patient developed multiple subcutaneous and bone metastases without visceral metastases within a few weeks and died 6 months after the diagnosis.

Discussion
Metastases in the palatine tonsils are rare and generally occur in cancers prone to metastasize: melanoma [1], lung cancer [2] and renal cancer [3]. It is noteworthy that among the few hundred cases reported in the literature, about a dozen concerned gastric cancer and only four colorectal cancer. These cancers generally metastasize less readily to the liver, lungs or bone, usually via hematogenous dissemination. Metastasis of colorectal cancer to other localizations is exceptional and usually occurs late in a context of highly disseminated disease. This context was not present in the four cases reported in the literature. In these cases, tonsillar metastasis was either the first metastatic localization or the inaugural manifestation of colorectal cancer. Most of the reported cases involved a very specific type of histology: poorly-differentiated [4] or undifferentiated cancer [5-7], or in our case, signet-ring cell adenocarcinoma [8, 9]. Signet-ring cell adenocarcinoma is an uncommon histological type of colorectal cancer, observed in about 1% of the cases [10], but has a rather distinctive presentation. Besides the specific histological features, signet-ring cell adenocarcinoma can be distinguished from classical adenocarcinoma by a more advanced stage at diagnosis and a greater propensity for peri-
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In conclusion, tonsillar metastasis is an exceptional but sometimes inaugural manifestation revealing generally poorly-differentiated or signet-ring cell cancer of the digestive tract. Anomalous expression of adhesion molecules frequently found in this type of cancer might be involved in the pathogenesis of the metastatic process.

REFERENCES


