REPORTS OF PRACTICAL ONCOLOGY AND RADIOTHERAPY 16 (2011) 36–39

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Case report

Anal canal plasmacytoma—An uncommon presentation site

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ARTICLE INFO

Article history:
Received 13 October 2010
Accepted 5 December 2010

Keywords:
Extramedullary plasmacytoma
Radiotherapy

ABSTRACT

Background: Extramedullary plasmacytomas (EMP) are rare plasma cell tumors that arise outside the bone marrow. They are most often located in the head and neck region, but may also occur in the other locations. The lower gastrointestinal EMP represents less than 5% of all cases, and location in the anal canal is exceedingly rare.
Aim: We present an exceedingly rare case of anal canal plasmacytoma, aiming to achieve a better understanding of this rare entity.
Methods: We report a case of a 61-year-old man with a bulky mass in the anal canal. The lesion measured about 6 cm and invaded in all layers of the anal canal wall. The biopsy was performed and revealed a round and plasmocitoid cell population with a solid growth pattern and necrosis. The tumoral cells have express CD79a and CD138 with lambda chains. There was no evidence of disease in other locations and these features were consistent with the diagnosis of an extra-osseous plasmacytoma. The patient was submitted to conformal radiotherapy 50.4 Gy total dose, 1.8 Gy per fraction. After 24 months, the patient is asymptomatic and the lesion has completely disappeared.
Conclusions: EMP accounts for approximately 3% of plasma cell malignancies. The median age is about 60 years, and the majority of patients are male. The treatment of choice for extramedullary plasmacytoma is radiation therapy in a dosage of about 50 Gy. Patients should be followed-up for life with repeated bone marrow aspiration and protein studies to detect the development of multiple myeloma.

1. Background

Solitary plasmacytomas (SP), a monoclonal proliferation of plasma cells without evidence of significant bone-marrow plasma-cell infiltration, is comprised of two main groups: solitary plasmacytoma of the bone (SPB) and extramedullary plasmocytoma (EMP). SP is a rare disease, and accounts for about 10% of plasma cells tumors.[1–3] The clinical presentation of the former generally includes bone involvement, with pain, neurological deficit and, sometimes, pathological fractures. The latter often presents as a mass which becomes symptomatic if compresses adjacent structures.

EMPs are most often located in the head and neck region, mainly in the upper aerodigestive tract, but may also occur in the gastrointestinal tract, urinary bladder, central nervous system, thyroid, breast, testes, parotid gland, lymph nodes,

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doi:10.1016/j.rpor.2010.12.002

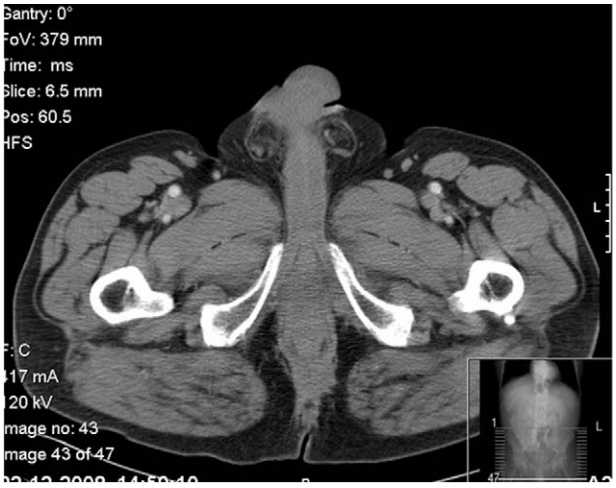
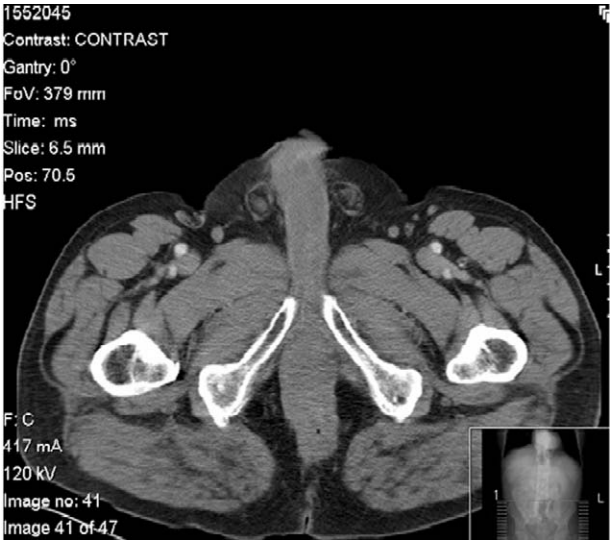


Fig. 1 – Axial CT.



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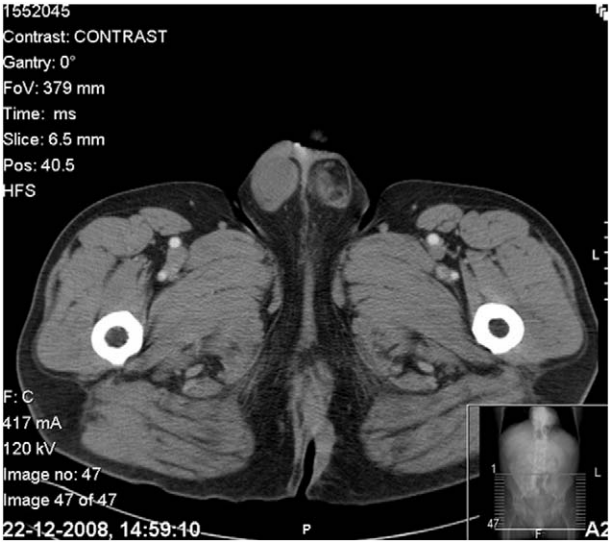

Fig. 3 – Axial CT.

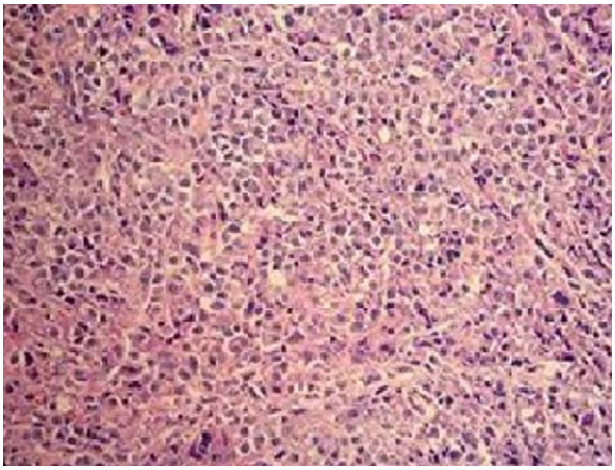

Fig. 4 – Photomicrograph.

and skin. The lower gastrointestinal EMP represents less than 5% of all cases.

We report an exceedingly rare case of anal canal plasmacytoma, aiming to achieve a better understanding of this rare entity.

2. Case report

A 61-year-old white man presented with a 4-month history of abdominal discomfort, tenesmus and perineal pain. On physical examination, he was in a good general status (IK 90%, PS 1). The digital rectal examination (DRE) revealed an impinging mass, of about 4 cm, hard consistency, at 2 cm of the anal margin, in the left posterior margin, without any palpable nodes. The blood testing showed haemoglobin 11.9 g/dL, white blood cells 5.73×10^9/L, β 2 microglobulin was slightly elevated (3.13 mg/L; Ref. 0.8–1.8 mg/L), and the protein electrophoresis revealed a slender elevation of the IgG. The pelvic CT revealed a bulky mass in the anal canal of about 6 cm that invaded all layers (Figs. 1–3). The biopsy was performed and histological examination identified a round and plasmocitoid cell population with solid growth pattern and necrosis. The tumoral cells expressed CD79a and CD138 with lambda light chains (Fig. 4).

There was no evidence of disease in other locations and these features were consistent with the diagnosis of an extramedullary plasmocyoma (EMP) according to Internacional Myeloma Working Group (IMWG).[4]

The patient was referred to our department and submitted to conformal 3D external radiotherapy (RT) directed to the lesion with a total dose of 50.4 Gy, 1.8 Gy/F, 5F/week. The irradiated PTV[1] included the tumor identified in the clinical exam and planning TC (GTV[2]) and a margin for subclinical disease (CTV[3]) and for variations and uncertainties (PTV). During the treatment, the patient complained about dysuria and occasional hematuria, which were treated with nonsteroidal

[1] PTV – planning target volume.
[2] GTV – gross tumor volume.
[3] CTV – clinical target volume.