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Case report

Inflammatory tumour in the course of microscopic polyangiitis may mimic testicular cancer

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Abstract

Introduction: **Microscopic polyangiitis (MPA) is an antineutrophil cytoplasmic** antibody (ANCA)-associated vasculitis (AAV) that can affect any organ. Sometimes, untypical localization, together with an unusual clinical manifestation of tumour-resembling inflammatory changes, can cause a delay in diagnosis and proper treatment.

Aim: The aim of this study was to expose the case of very rare location of MPA manifestation.

Case study: **In this paper, we present the case of inflammatory testicular tumour-like lesion** that was a manifestation of MPA and mimicked testicular cancer.

Results and discussion: **It is probably first desribed case of MPA mimicking** testicular cancer. However, in the literature some others AAV manifestation in that location can be found. In these patients orchiectomy was recommended much more often than a testicular biopsy.

Conclusions: We conclude that in case of a patient with untypical features of a tumour, inflammatory processes, including vasculitis, should be taken into consideration in differential diagnosis.

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1. INTRODUCTION

Antineutrophil cytoplasmic antibody (ANCA)-associated vasculitis (AAV) is a heterogenic group of systemic autoimmune diseases that affect small- and medium-sized blood vessels. Due to its pathogenesis, as well as various possible localizations, their signs and symptoms may range from non-specific inflammatory symptoms (fatigue, fever, anaemia and weight loss), through damages of particular organs to multi-organ impairment of dramatic course. One of the categories of AAV is microscopic polyangiitis (MPA). MPA is typically characterised by necrotizing glomerulonephritis and pulmonary capillaritis.[1]

2. AIM

Rarely, the AAV may manifest itself as an inflammatory change resembling a tumour, which, together with an atypical localization (e.g. testicle) can delay correct diagnosis. The aim of this report is to underline the importance of differential diagnosis in patient with suspicion of testicular cancer or other organ's tumour.

3. CASE STUDY

A 61-year old man was admitted to hospital due to enlargement of the testicle. The patient also complained of nonspecific flu-like symptoms, including recurring fever, fatigue and skin lesions (palpable purpura on both shanks) occurring with a variable frequency since about a year. Due to the suspicion of pneumonia and the history of many lower respiratory tract infections, the patient was hospitalized and endobronchial ultrasound (EBUS), chest computed tomography (CT) and X-ray were performed. As a result, the patient was diagnosed with mediastinal lymphadenopathy and non-granulomatous nodular changes. Due to these findings and increasing renal parameters, fractions of antineutrophil antibodies were marked. MPO-ANCA were found with a high tier, whereas ANA and PR3-ANCA were negative, and so the patient was suspected with MPA. Due to high suspicion of testicular cancer, the patient was qualified for surgical treatment, despite the diagnosis of MPA. Orchiectomy and intraoperative biopsy were performed. The result of the histopathological examination of testicular biopsy revealed infiltration of mononuclear cells and necrosis of small vessels and so the diagnosis of MPA was confirmed. The tumour was described as inflammatory (as a manifestation of MPA) with no features of malignancy.

After the surgery, the patient developed symptoms of acute kidney failure and was transferred to the Nephrology Clinic. Rapidly progressing glomerulonephritis and exacerbation of chronic renal failure were diagnosed. Haemodialysis and treatment with steroids were initiated. After the steroid therapy failed, the cyclophosphamide treatment was initiated. Having received a total of 3 g of it, an immunological regression was achieved and hemodialysis were discontinued. Maintenance therapy using mycofenolate mofetil was initiated.

Other clinically significant diseases of this patient, diagnosed during the hospitalisation, were: postherapy diabetes, hypertension and features of pulmonary hypertension in echocardiography, hepatitis C and Beker's cyst in the left knee-joint.

4. RESULTS AND DISCUSSION

The literature includes some reports of tumour-like lesions of the testicle in the course of a systemic vasculitis, but, to our knowledge, none of them appeared in the course of MPA. There was only one case report, where in the course MPA changes within the testicle were discovered, but they didn't resemble a tumour and were observed post-mortem.[2]

The most common vasculitis related to small vessels inflammation and necrosis, reported within the analysed literature, was polyarteriitis nodosa, but granulomatosis with polyangiitis, Schönlein-Henoch purpura, Goodpasture syndrome or even nonspecifed autoimmune-type vasculitides also occurred.[3–6]

Due to a suspicion of a testicular cancer, orchiectomy was recommended much more often than a testicular biopsy (as it is reserved to patients with very questionable cancer diagnosis and clear diagnosis of systemic symptoms of vasculitis).[3,7] The risk of cancer was significantly higher in patients who had symptoms limited only to the testicle, compared to the those with symptoms of a systemic disease.[8]

5. CONCLUSIONS

In patients diagnosed with vasculitis (especially AAV with systemic symptoms) there is a high probability that observed lesions are non-malignant and then differential diagnosis has to include inflammatory changes.

Conflict of interest

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