

DIFICULTIES IN THE DIFFERENTIAL DIAGNOSIS IN A CASE OF A VISCERAL LEISHMANIASIS

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SUMMARY

We are describing clinical case of a patient living in the area of Veliko Tarnovo. His complains from persisting fever and weight reduction (30 kg) are lasting from about a year. During the diagnostic procedures at a physical exam a marked enlargement of the spleen and liver were found. The administered antibiotic therapies didn't improve his condition. He was admitted several times at the Municipal hospital of Veliko Tarnovo and the University hospital at the city of Pleven. At first diagnosis of chronic hepatitis was considered and consequently a malignant non-Hodgkin's lymphoma is proposed. For diagnostic and therapeutic objectives the spleen of the patient was surgically removed. After hystopathological assessment of a splenic and lymph node tissue samples at NSHATHD - Sofia, a possible protozoan infection with *Leishmania* spp. is considered and the patient is directed for an additional consultation to the Department of Parasitology and Tropical Medicine at NCIPD - Sofia. Based on the results of a positive serological testing, morphoparasitological examination of a bone marrow aspirate stained by Romanowsky-Giemsa with positive identification of leishmania amastigots in the preparations, and positive genomic DNA analysis by PCR - technique, a diagnosis of visceral leishmaniasis was established. A therapy regiment was prescribed and the patient directed to a hospital treatment.

Key words: Leishmaniasis, Lymphoma, Leukemia, bone marrow

INTRODUCTION

Although endemic for the Republic of Bulgaria protozoanotic disease, the visceral leishmaniasis often represents as a serious diagnostic problem for the medical practitioners in the country. Such diagnostic difficulties may bear substantial risk of complications from the disease and even fatal outcome for the patient.

From year 1988 to 2008 we reported 106 clinical cases of visceral leishmaniasis in the country. There are 17 deaths among them, mostly because of a late diagnosis and treatment (1, 2).

CASE HISTORY

We are following the clinical case of a 43 year old patient living in the area of Veliko Tarnovo. The patient's complains are dated back to the month of April 2008 when after surgical treatment for an anal fissure he develops persisting fever accompanied by intermittent chills with profuse sweating. He undergoes several cycles of antibiotic treatment without substantial improvement of his condition and he rapidly starts to lose weight. Three months after the beginning of his symptoms he lost already about a 30 kg. of his body mass. At one of the follow up examinations a substantial hepatosplenomegaly is

revealed and with a suspicion for a developing hematological disease the patient was referred to the Municipal hospital at the town of Veliko Tarnovo for further examination and evaluation. After admission at this hospital the patient is tested for viral hepatitis with negative results, a cardiology exam ruled out endocarditis, and after ultrasonographic tests, fibrogastros-copy and computed axial tomography (CAT) of the abdomen the patient is discharged with diagnosis: Chronic persistent hepatitis, not elsewhere classified (ICD - K73.0).

February 2009, the patient is admitted to a Hematology clinic at the University hospital at the city of Pleven. After additional diagnostic procedures and examination of bone marrow-biopsy specimen and flow cytometry, for diagnostic and therapeutic purposes the patient's spleen was surgically removed. The most likely diagnosis was considered to be malignant non-Hodgkin lymphoma with possible T-cell origin. At the time, possible parasitic disease wasn't included in the differential diagnosis. March 2009 the patient is admitted for a second time at the same hospital for additional testing and therapy. The physical examination revealed the patient was in moderately good condition, alert and afebrile at admission, without palpable pathologically enlarged lymph nodes; chest exam without visible abnormal findings with no rales, wheezes or rhonchi on auscultation, and no dullness on percussion; heart rate - 81 beats per min.; heart tones were regular without murmurs; blood pressure of 120/85 mmHg; abdomen without pain and tenderness, but with visible surgical scar from splenectomy and liver palpable at 2 cm. below the right costal margin; there wasn't peripheral edema and succusio renalis was negative. The results from the laboratory studies at the admission were: Hb - 115 g/l (ref. males - 140-180); Hct - 0.354 (ref. males - 0.40-0.54); RBC - 4.07 T/l (ref. males - 4.6 - 6.2 T/l); WBC - 8.3 G/l (ref. 3.5-10.5 G/l); Differential count: St - 5% (ref. 3-6%), Seg. - 36% (ref. 51-67%), Mo - 9% (ref. 4-8%), Ly - 50% (ref. 22-40%). MCV - 87fl (ref. 82-96fl); MCH - 33pg (ref. 27-33pg); PLT - 272 G/l (ref. 140 - 440 G/l); T.bill - 6.8 µmol/l (ref. 0-21µmol/l); ASAT - 79.2 U/l (ref. 5-40 U/l at 37°C); ALAT - 41 U/l (ref. 5-40 U/l at 37°C); LDH - 1475 U/l (ref. 50-280 U/l at 37°C); PG (plasma glucose) - 2.86 mmol/l (ref. 2.78 - 5.55 mmol/l); Protein (total) - 111 g/l (ref. 60-83 g/l); Albumin - 35.7 g/l (ref. 35-53 g/l); Urea - 6.2 mmol/l (ref. 1.67-8.2 mmol/l); Creatinine - 90 mmol/l (ref. 44.2-133.6 mmol/l); Fibrinogen - 4.92 g/l (ref. 2-4.5 g/l). A therapeutic regimen of cyclofosphamide, vincristine and prednisone was administered and the patient discharged with recommendation to return after a month for another round of polychemotherapy.

Because a lack of substantial improvement in the patient's clinical condition, April 2009 blocks with paraffin embedded tissue obtained by biopsy of the patient's spleen and a lymph node, as well as ready and stained hystopathological slides were send for an additional consultation to a Laboratory of chemopathology and immunology at the National specialized hospital for active treatment of hematological diseases (NSHATHD) - Sofia. The immunohistochemical assay of the tissue samples performed there showed normal positive reaction and distribution of the CD20 (an antigen expressed by the differentiating B-cells, but not by T-cells and plasma cells (5); normal positive reaction and distribution of the CD45RO (antigen expressed by the T-memory cells, CD4+, but also by monocytes, macrophages and granulocytes (5); normal positive reaction and distribution of CD138 (antigen expressed by the plasma cells (5); positive reaction for IgG in the plasma cell population; Normal reaction for Lambda-light chains and Kappa-light chains, excluding the presence of pathological monoclonality.

On a microscopic hystopathological assessment of spleen tissue samples stained with hematoxylin-eosin (H&E) dye were observed little intracytoplasmatic inclusions /phagocyted?/ into the cytoplasm of the macrophages of the red pulp.

ABBREVIATIONS USED IN THIS PAPER:

STD - sexual transmitted diseases, IDA - introvenous drug obusers, NIDA - non-introvenous drug obusers

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