



Trombositopeninin nadir bir sebebi: Leptospirozis

A rare cause of thrombocytopenia: Leptospirosis

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Sir,

Referral of the patients coming with fever and thrombocytopenia to hematology clinics is a usual situation. Final diagnose may be a viral infection and sometimes infections of some rare microorganisms. Leptospirosis should be taken into account in our country, Turkey. We present such a patient who admitted to hematology policlinic with fever and thrombocytopenia, was diagnosed as leptospirosis and completely healed with appropriate treatment.

Case

Twenty two years old male patient suffering from fever, fatigue and pain of scruff and eyes applied to hematology policlinic. His complaints had begun suddenly 5-6 days ago, fever had raised up to 40 degrees at first three days and begun declining for two days. His initially performed tests at his locale resulted as: WBC:5300/ μ L, Hb: 13.1 g/dL, Platelets: 22000/ μ L, Total bilirubine:1.6, Direct bilirubine: 0.8 mg/dL, ALT: 47 U/L, AST: 52 U/L, ALP: 113 U/L, LDH: 215U/L,

Key words: fever; leptospirosis; thrombocytopenia

Anahtar kelimeler: ateş, leptospiroz, trombositopeni

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CK: 487U/L, GGT: 60 U/L . Whole abdominal CT was normal. He was conscious, his general situation was moderate - poor, there was no pathological findings at his physical examination. His blood count and serum biochemical analysis were as follows: WBC: 7600/ μ L, Hb: 14.4 g/dL, Plt: 39000/ μ L, glucose: 75 mg/dl, BUN: 26mg/dl, creatinine: 0.67 mg/dl, AST:31 U/L, ALT:55 U/L, Total bilirubine: 0.9 mg/dl, Direct bilirubine: 0.4 mg/dl, ALP:124U/L, GGT:77 U/L, CK:68 U/L, LDH:250 U/L. Direct, indirect and Coombs and complemented Coombs tests were negative. Microscopic hematuria was determined at his urinalysis. There was no atypical cells at his peripheral blood smear but 2-3 single platelets were seen at every fields. His urine and blood samples were taken for culture and serological tests of TORCH, viral hepatitis, Sandfly Fever, Chrimmean Congo Hemoragic Fever, Hantavirus infection, Brucellosis and Leptospirosis. Sulbactam ampicillin and ciprofloxacin were given empirically. From the second day of treatment his general situation and laboratory findings improved obviously. Leptospira MAT (microagglutination) test resulted as: positive for *Leptospira icterohaemorrhageae* at 1/800 titer. The patient was discharged by healing and complete normalisation of hemogram and biochemical tests after 9 day treatment of sulbactam ampicillin.

Discussion

Viral infections and some zoonoses should be also taken into account as well as hematologic pathologies for the patients having fever and thrombocytopenia. Especially his location, job, contact with rodents etc... should be investigated for the exposure because such epidemiological data may lead to diagnosis. Leptospirosis is one of the mostly seen zoonoses. It is caused by

pathogenic spirochetes from the genus *Leptospira* (1). Direct or indirect contact with infected animals or their urines at urban areas is the main route of transmission (2). Our patient's job was cleaning of irrigation canals of farmlands that is coherent with this route.

The disease is observed as anicteric mild, self limiting form at approximately 90% of the patients and as serious potentially fatal form characterised by any combinations of renal failure, liver failure and pneumonitis with hemorrhagic diatheses at the others (1). It's a two phase disease as leptospiremia phase and immunological phase for each of the forms and these phases usually cannot be separated from each other (1). Thrombocytopenia is the most common hematological manifestation in severe forms of leptospirosis and it's generally correlated with poor outcomes (3-5). *Leptospira* microscopic agglutination test (MAT) is the most used diagnostic tool for suspected patients. Titer of $\geq 1/200$ is suggestive enough when clinical findings are present. Titer of 1/800 or 4 fold increase of titer after 10 days interval is evident for the diagnosis (1).

Antibiotics and supporting treatments should be used for the patients immediately. If the disease is not treated appropriately within the first 2-3 days, it may progress in severity (6). So, initial suspect about the disease in differential diagnose is very important. It should be remembered especially for the patients having fever, orbital pain, thrombocytopenia, mild elevations at transaminases with elevations at creatin kinase and bilirubines and/or impairment of kidney function tests. Early diagnose and treatment can avoid transition to immunologic phase and reduce the mortality (6).

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