

AFFECTING THE MESENTERIC LYMPH NODES AND KIDNEY CASE PRESENTATION

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Abstract. We present the case of C.I., a 16 year-old female patient, diagnosed with human immunodeficiency virus (HIV) infection since September 2006 (the suspicion beginning from a genital condylomatosis). Our patient had contact with a multidrug-resistant TBC patient (her stepmother), who abandoned the tuberculostatic therapy several times. Our patient hospitalized in December 2006, accused fever, vomiting, diffuse abdominal pain, abdominal muscle contraction. During surgical procedure, mesenteric lymph nodes fistulized into colon and duodenum were discovered, against which right hemicolectomy, duodenorrhaphy, drainage, mesenteric lymphadenectomy were used. Before hospitalization, urine cultures already confirmed urinary tuberculosis, with BK rifampin - and isoniazid-resistant, but sensible to pyrazinamide, ethambutol, cycloserine, amikacin. The patient's health condition was growing worse and 4 weeks after the operation she died.

Keywords: human immunodeficiency virus (HIV) infection, mesenteric lymphadenectomy

Rezumat. Prezentăm cazul pacientei C.I., în vârstă de 16 ani, diagnosticată în septembrie 2006 cu infecție HIV (suspectată pornind de la prezența condilomatozei genitale), contact cu mama vitregă cunoscută cu TBC pulmonar chimioresistent, prin repetate întreruperi ale terapiei tuberculostatice, care se internează în decembrie 2006 cu febră, vărsături, dureri abdominale difuze, apărare musculară. Se intervine chirurgical evidențiindu-se adenopatii mezenterice fistulizate în colon, duoden, pentru care se practică hemicolectomie dreaptă, duodenorafie, drenaj al colecțiilor, limfadenectomie mezenterică. Uroculturile prelevate anterior spitalizării, confirmă prezența unei tuberculoze renale cu BK rezistent la rifampicină, izoniazidă, sensibil la pirazinamidă, ethambutol, cicloserină, amikacină. Evoluția este nefavorabilă, soldată cu decesul pacientei la 4 săptămâni postoperator.

Cuvinte cheie: infecție HIV, limfadenectomie mezenterică

INTRODUCTION

The incidence of the tuberculosis (TB) increased dramatically after 1980, at the same time with HIV outbreak, representing the major opportunist infection, indicating an immunodepression indicator through HIV infection. Comparing the incidence of 146 cases/100.000

in Sub-Saharan Africa in 1990, in 2003, 345 cases/100.000 inhabitants were registered, the TB outbreak being accelerated by the HIV outbreak TB is frequently responsible for the death of the seropositive HIV patients, while HIV infection is the most important factor involved in the reactivation of the latent TB.

Pathogenically, the incidence of TB in HIV infection is associated with the progressive deficit in CD4 lymphocytes, and with the functional deficiency of macrophages and monocytes, as well.

In early stage of the HIV infection with CD4 over 300/mm³, TB infection has frequently lung localization, with certain clinical manifestation as in immunocompetent persons, involving fever/sub-fever, loss of weight, productive cough, haemoptysis.

The radiological examination emphasizes infiltrate/cavitary apical localized image; in seropositive advanced HIV disease, TB has non-typical pulmonary aspect, or most frequently, extrapulmonary location: bone marrow, urinary or gastro-intestinal tract, liver, lymph nodes or in the central nervous system. The X-Ray may not register any change, or it may contain perihilar or mediastinal lymph nodes with any other parenchymatous changes; it also can mime the community pneumonia or the pneumocystis carinii. Cavitation is unusual in this stage, most frequently a diffuse pronounced interstice may appear.

One-third of the HIV/AIDS cases associated with TB infection, present positive haemocultures for M. Tuberculosis.

Due to the immunodepression of the cell line, the intradermic tuberculin reaction is positive in only 30-50%, a negative test may be insufficient to exclude the diagnosis.

There were 50-70% sputum-positive cases, positive cultures being in percentage of 80%, the same as in the immunocompetent patients, with TB reactivation. Quantiferon (TB-specific interferon gamma release assays) and PCR (Polymerase chain reactions) are very useful for the rapid TB diagnosis.

Before initiating the antiretroviral therapy, the confirmed TB patients will be treated with tuberculostatic medication. Even if there is a possibility of atypic mycobacterium infection, the primary scheme will treat TB, because the treatment for atypic mycobacterium is

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not active for *M. tuberculosis*, resistance promoters (see table no. 1).

Table nr.1: Tuberculostatic agents of prime intention (source-CDC)

DCI	Administration	Daily dose for children	Daily dose for adults	Side effects	Comments
Isoniasid	Po/im	300 mg	300 mg	Hepatic cytolysis Peripheral neuropathy SNC affected Medical interaction	The risk for hepatotoxicity increases with age and alcohol consumption
Rifampin	Po/iv	10-20 mg/kgc	600 mg	Gastrointestinal effects Drug interaction Toxic hepatitis Blood curdling disorders Pseudoinfluenza manifestations Rash	Multiple drug interaction The biological fluids and the contact lens may be coloured in orange
Rifabutin	Po/iv	10-20 mg/kgc 300 mg	300 mg	Hepatitis Fever Thrombocytopenia Uveitis Leucopenya Rash	The same as for Rifampin
Pyrazinamide	Po	15-30 mg/kg (2g)	2g	Hepatitis Rash Gastrointestinal manifestations Hyperuricemy Gout (rare)	Treatment of manifest hyperuricemy
Ethambutol	Po	15-25 mg/kgc	15-25mg/kgc	Optic neuritis	Not recommended for small children, because of visual disorders hard to monitor
Streptomycinum	im	20-40 mg/kgc	1g	Ototoxicity Nephrotoxicity	Doses should be reduced at patients over 60

For patients under ARV treatment, short term periods of 6 to 9 month of small Rifabutin doses are preferred, as a substitution for Rifampicine, due to Rifampicine's significant interactions with protease inhibitors and non-nucleoside reverse transcriptase inhibitors. (NNRTIs);

Non-nucleoside reverse transcriptase inhibitors. (for example Zidovudine [Retrovir], Didanosine [Videx]) could be associated to Rifampicine, because of their low interaction.

The multidrugresistence may be suggested by: abandon of the tuberculostatic treatment, drug parenteral administration, residence in an area with BK resistance , persistent fever under the initial four drugs standard administration.

Because of tuberculostatics frequent side effects in HIV positive patients (25%), during therapy, the

patients will be clinically and biologically monthly surveyed.

The profilaxy is indicated for the HIV infected patients: if the tuberculin test shows an induration over 5mm in diameter in 48 hours; contact with diagnosed active TB infected person, anergy in a person exposed to high risk by contact with *M. tuberculosis* (prisoners).

Case presentation

We hereby present the case of C.I., a 16 year-old female patient, uneducated, hospitalized in September 2006 for an acute episode of diarrhoea, during which she is surgically and gynecologically evaluated, in order to exclude a surgical acute abdomen. She was diagnosed with genital condyloma. Starting from this, we obtained more information from the patient and we came to the conclusion that the patient had unprotected sexual contact from the age of 14. With the consent of her family, we performed specific serological tests, marking out the anti-

HIV antibodies by ELISA and Westernblot tests. The patient was guided for immunological and virological evaluation in the Territorial Centre for HIV-infection Survey.

In evolution, our patient shows persistent dyspepsia, inconstant fever, diffuse abdominal pains, for which she was hospitalised again in December 2006, in the Clinical Hospital for Contagious Diseases.

Objective examination showed: critically general state, sub-fever 37,5°C, precarious nutrition, height=140cm, BMI=15,31kg/m², paleness, exhausted face, laterocervical lymph nodes, pulmonary stethacoustic: physiological vesicular murmur; normal cardiac sounds, heart allure= 100/min, congested pharynx, diffuse abdominal pains (spontaneous and to palpation)-difficult to examine, liver touched 4cm under rib.

The laboratory examinations showed: Le=6400/mm³, S=55%, E=2%, Ly=42%, Mo=1% ; Hb=9,1g/dl, MCV=77,5, Tr= 471 000/mm³; fibrinogen=375mg%, VSH= 50/mm³, PCR= 384mg%, glycaemia= 85 mg%, urea=23 mg%, creatinine= 0,57 mg%, amylase= 34 mg/dl; TGO =62 u/l, TGP=103 u/l, GGT=174 u/l, BT=0,39mg/dl, CD4 = 200/mm³, viral load- still working.

Pulmonary radiography: no active pleuropulmonary modification; **Pneumological consult:** tuberculostatic therapy, anamnesticly suggested by the contact with our patient's stepmother (already known with MDR tuberculosis).

Abdominal echography: liver-right lobe 12 cm, left lobe AP diameter 12,5 cm, homogeneous, spleen vein 9 mm, normal sized kidneys, with no dilatation of excretory system, hyperechogenity.

The surgical evaluation recommended exploratory laparotomy, initially temporized by the family, and then accepted because of the patient's deteriorated general medical condition.

During the surgical procedure, mesenteric and retroperitoneal lymph nodes were discovered, the mesenteric ones already being fistulized into colon and duodenum. Right hemicolectomy, duodenorrhaphy, mesenteric and retroperitoneal lymphadenectomy and drainage were used. Post-surgery, the results from the bacteriological culture of urine sampled 6 months before, confirm the BK multidrug-resistant, against which associated treatment with Pyrazinamide, Ethambutol, Cycloserin and Amikacin was suggested.

The patient's health condition was growing worse, with duodenal fistulisation, repeated suprainfections of surgical wounds, pleural and peritoneal collections, and multiple system organ failure. Our patient died 4 weeks after the operation.

The case we presented brings forward the real problem of the immunodepressed HIV infected patient, TB contact, for which the prophylactic attitude against TB is really necessary, even in the absence of evident pulmonary TB infection. It is also absolutely necessary to render evident with imagistic techniques the eventual mediastinal or any other extrapulmonary lymph nodes localisation.

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