IDCases 16 (2019) e00518

Contents lists available at ScienceDirect

IDCases

journal homepage: www.elsevier.com/locate/idcr

Disseminated tuberculosis and hemophagocytic syndrome although TB prophylaxis in patients with inflammatory bowel disease treated with Infliximab

Modesto Martínez-Pillado[a,*], Marina Varela-Durán[b], Ismael Said-Criado[c], Pilar Díaz-Parada[b], María Rodríguez-Losada[b], María Mendoza-Pintos[b]

[a] Quality Unit, Instituto de Investigación Sanitaria Galicia Sur, (IISGS), Spain
[b] Reanimation Unit, Anesthesia and Reanimation Department, Hospital Montecelo, Pontevedra, Spain
[c] Povisa Hospital, Hospital Montecelo, Pontevedra, Instituto de Investigación Sanitaria Galicia Sur, (IISGS), Spain

ARTICLE INFO

Article history:
Received 2 July 2018
Received in revised form 7 September 2018
Accepted 6 March 2019

ABSTRACT

Purpose: We present de case of a 27-year-old woman admitted to ICU after scheduled splenectomy to study her short course of fever, leukopenia and splenic space-occupying lesions and splenomegaly. She has been previously treated with Infliximab due to indeterminate colitis and completed correct tuberculosis prophylaxis.
Materials and methods: We reviewed our case in our regional Electronic Health DataBase IANUS and compared it with other case reports in literature, found in PubMed, with keywords tuberculosis, inflammatory disease and hemophagocytic lymphohistiocytosis.
Results: After splenectomy, she needed intensive care due to acute respiratory failure, alveolar-interstitial pulmonary infiltrates, right pleural effusion and fever. Bone marrow aspirate resulted in hemophagocytic lymphohistiocytosis. Only multidisciplinary management in ICU and combined treatment with chemotherapy for hemophagocytic syndrome and tuberculostatics achieved her curation.
Conclusion: Tuberculosis must always be considered in the differential diagnosis of hemophagocytic lymphohistiocytosis and acute respiratory failure despite correct prior prophylaxis.

Incidence of disseminated tuberculosis in Spain has risen, in last two decades [1], but remains relatively low. This incidence increases in immunocompromised patients, so tuberculosis prophylaxis with Isoniazid is completed before starting anti-TNK treatments in autoimmune chronic diseases [2,3]. Differential diagnosis of any serious clinical picture with multiorgan involvement should include tuberculosis [4,5], even if previously chemoprophylaxis has been properly completed.

A 27-year-old woman with a history of anxiety-depressive syndrome, polycystic ovarian syndrome and inflammatory bowel disease (indeterminate to colitis). She had been treated over three years with immunosuppressive therapy (systemic corticosteroids, azathioprine and infliximab). She had received, with non-clinical evidence of previous PPD +, proper TB prophylaxis (isoniazid, INH) for nine months before starting the biological treatment.

Case report

She was admitted to hospital presenting 3-days high fever (up to 39 °C), leukopenia, proctitis, splenic space-occupying lesions and splenomegaly, suspecting lymphoma or splenic abscesses. Bone marrow aspirate results in a hemophagocytic lymphohistiocytosis. Microbiological (BAAR) serological (VIH,etc) results blood were all negative.

Because of a rapid clinical deterioration, splenectomy in hospital day five, and liver biopsy were performed in day six. Two days after surgery she developed acute respiratory failure in second day after surgery, alveolar-interstitial pulmonary infiltrates, right pleural effusion and fever. Echo-guided thoracentesis of right pleural effusion, lumbar puncture, bronchoscopy with bronchoalveolar lavage were performed and antibiotic empiric therapy with Meropenem, Linezolid, empiric therapy antifungal,

* Corresponding author at: Instituto de Investigación Sanitaria Galicia Sur (IIGS).
E-mail addresses: modefi@arrakis.es, modesto.martinez.pillado@sergas.es (M. Martínez-Pillado).

https://doi.org/10.1016/j.idcr.2019.e00518

Pneumocystis jirovecii prophylaxis with Trimethoprim-Sulfamethoxazole and tuberculostatic quadruple therapy were started. Criteria for hemophagocytic syndrome wermet: fever > 38,5 °C, splenomegaly, hypertriglyceridemia (326 mg/dl), ferritin > 500 and hemophagocytosis demonstrated in bone marrow aspirate. Empirical treatment for histiocytes and lymphocytes proliferation was started with Dexamethasone 10 mg / m^2 daily and etoposide 150 mg / m^2.

On the 4th day of admission in ICU, Total Parenteral Nutrition was started and she remained sedated and intubated. On 7th day, after receiving negative tests for tuberculosis in cerebrospinal fluid (absence of acid-alcohol resistant bacilli), intrathecal Methotrexate was started. On 10th day of admission, extubation was successful and pathology results from spleen and liver revealed a necrotizing granulomatous reaction with the presence of acid-fast bacilli.

After being assessed by Psychiatry because of a reactive anxiety syndrome, anxiolytic benzodiazepines an antidepressant were restarted, and she was moved to Internal Medicine ward. Hepatization in lung right lower lobe was demonstrated by thoracic ultrasound and diagnostic thoracentesis was performed in which laboratory results were consistent with pleural tuberculosis. The isolate was found to be pan-sensitive and she successfully complete therapy for ten days and anti TNF-therapy continued.

Discussion heading the importance of this case, is given by association between hemophagocytic syndrome and disseminated tuberculosis in an immunosuppressed patient and the outcrop of this infectious disease that must always be considered in the differential diagnosis of fever despite correct prior prophylaxis. Therefore, it is an opportunity to focus on the efficacy of anti-TB chemoprophylaxis in latent TB infected patients who are to receive anti-TNF. In each case, we must decide if anti-TNF and chemoprophylaxis must be appropriate, as this case report showed. Multidisciplinary management in the ICU is always mandatory to achieve curation.

References

[1] Rodríguez Valín E. Situación actual de la tuberculosis en España: incidencia y mortalidad desde 1995. Características de los casos de tuberculosis y meningitis tuberculosa declarados en 2000 2002;28(July (07))395–400. . ISSN 1138-3593. Available at http://www.elsevierinstituciones.com/ei/1138-3593/28/395.

[2] Caldera F, Grimes I, Soni A. Reactivation of latent tuberculosis in a Crohn's patient after TB prophylaxis treated with adalimumab. Am J Gastroenterol 2013;108(July (7)):1181–2.

[3] Liao TL, Lin CH, Chen YM, Chang CL, Chen HH, Chen DY. Different risk of tuberculosis and efficacy of isoniazid prophylaxis in rheumatoid arthritis patients with biologic therapy: a nationwide retrospective cohort study in Taiwan. PLoS One 2016;11(April (4)).

[4] Becker C, Núñez Aragón R, Mateu Pruñonosa L, Pedro-Botet Montoya ML. Hemophagocytic syndrome associated with disseminated tuberculosis. Med Clin (Barc) 2011;137(September (8)):378–9.

[5] Brastianos PK, Swanson JW, Torbenson M, Sperati J, Karakousis PC. Tuberculosis-associated haemophagocytic syndrome. Lancet Infect Dis 2006;6(July (7)):447–54.