Abstract Code: ASID021-011

Disseminated tuberculosis complicating Bacillus Calmette–Guérin (BCG) vaccine as only presentation of Severe combined immunodeficiency (SCID). Report of three cases

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Keywords: SCID, Primary immunodeficiency, Disseminated Tuberculosis, BCG vaccine.

Abstract

Background: Severe combined immunodeficiency disease (SCID) is a rare primary immunodeficiency disease, manifest in the first 6 month of life with failure to thrive, oral thrush, recurrent respiratory infection and chronic diarrhea.

Case presentation: We report a unique presentation of SCID in three male patients. They are an outcome of consanguineous marriage and all received the BCG vaccine at birth. All three cases presented with regional lymphadenopathy at age of 3 months that progressed to generalize lymphadenopathy treated with anti-tuberculous. The first and second case were twins. The first had uneventful history until the age of 33 month when he developed multiple Suppurative Tuberculous lymphadenitis confirmed by biopsy. The second and the third cases were diagnosed with Disseminated Tuberculosis at age of 24 months as they developed fever, anemia, weight loss, tuberculous peritonitis and lymphadenopathy confirmed by biopsy. After investigations, the first case was diagnosed as CD4,CD16 lymphopenic SCID, the second case as CD4,CD8,CD19,CD16 lymphopenic SCID with hypogammaglobulinemia and the third case as CD3,CD4,CD8 lymphopenic SCID with hypogammaglobulinemia. They received anti-Tuberculous, prophylactic Trimethoprim/Sulfamethoxazole and Immunoglobulin infusion. The patients at the time of writing this report are all alive and thriving normally and they did not have any other bacterial, viral or fungal infection, the twins are 3 years old and the third case is 30 month old.

Conclusion: SCID may not exhibit the classical manifestation of recurrent infections, and it may present only as a complication of BCG vaccine alarming to maintain high susceptibility in such patients especially in Sudan were BCG vaccine usually given at birth.