

CASE REPORT

TETANUS IMMUNOGLOBULIN PROBABLY PRECIPITATED PLEURAL EFFUSION IN A HIV PATIENT

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ABSTRACT

A case report is about the development of tetanus in a HIV+ patient, who is immunized with tetanus toxoid. Later on patient developed pleural effusion. The role of tetanus immunoglobulin in precipitating pleural effusion has been doubted.

Keywords: Tetanus, Pleural Effusion, HIV, ART

INTRODUCTION

Development of tetanus following booster dose of tetanus toxoid in HIV patient is not uncommon. There are reports of tetanus in previously immunized HIV+ patients. Also, Immunoglobulin (Ig) acts as an immunomodulator, and perhaps, immunoglobulin precipitated Pleural effusion.

CASE REPORT

On 2nd April, 2016, A 30 year old HIV+ male patient, attended ART centre because of lockjaw, and mild rise of temperature, which he developed on previous day. He is on cART since 5 years. Clinical examination revealed lockjaw without any local inflammatory causes and also opisthotonus. Diagnosis of Tetanus was made. Patient had the history of bite by non rabid dog a few months back, and he received booster dose of tetanus toxoid. Patient was treated with 4000 IU of tetanus immunoglobulin IM besides Metronidazole and Diazepam IV. Though patient recovered from tetanus on the 7th day, subsequently he complained of shortness of breath. Total leucocyte count was 11,200/cmm and polymorphs and lymphocytes were 81% and 14% respectively. CD4+ T cell count was 316/cmm. Liver and renal functions were normal. X-ray chest revealed left sided pleural effusion (fig.1). Tuberculin Skin Test and sputum smear for AFB did not contribute to the diagnosis. Even though, It was assumed a case of HIV-Tb. co-infection. Nevirapine in cART was changed to Efavirenz. Simultaneously, DOTs under RNTCP was started. After 25 days, breathlessness subsided, and the X-ray chest showed minimal effusion. Subsidence of pleural effusion following antituberculous treatment confirmed the pleural effusion caused by tuberculosis.

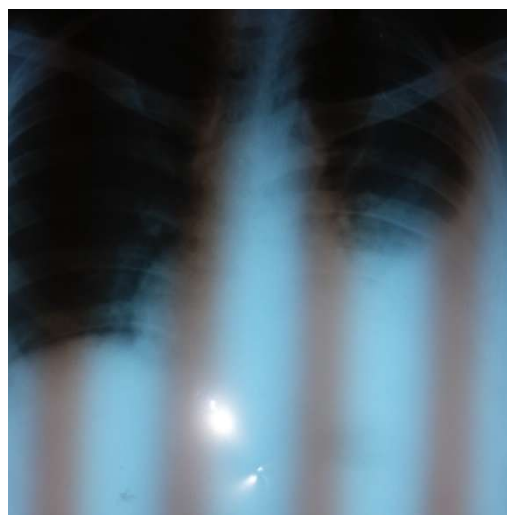


Figure 1: Left sided Pleural Effusion

DISCUSSION

Waning of immunity or subnormal response to booster dose of tetanus toxoid has been seen in immunized patient of HIV¹ due to T-cell dysfunction that happens in patients early in the course of infection, even when the CD4+ T-cell count is in low-normal range. The degree and spectrum of dysfunctions increase as the infection progresses. One of the first abnormalities to be detected is a defect in response to remote recall antigens, such as tetanus toxoid and influenza, at a time when mononuclear cells can still respond normally to mitogenic stimulation². Immunoglobulin (Ig) has immunomodulatory effect. High-dose IV Ig is administered routinely as a treatment of a variety of human inflammatory disorders. Because of anti-TNF- α , also used in some of the same inflammatory disorders, has been shown to

a treatment of a variety of human inflammatory disorders. Because of anti-TNF- α , also used in some of the same inflammatory disorders, has been shown to cause reactivation of TB. However, immunoglobulin has been shown to have therapeutic effect when given to mouse model of tuberculosis³.

REFERENCES

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