Marrow Cryptococcosis in Acquired Immunodeficient Patient

A 46 years male admitted with complaints of moderate grade intermittent fever for last 7 months along with throbbing headache for last 3 weeks. There was no history of cough, expectoration, chest pain, hemoptysis, vomiting, and dimness of vision. Patient also complained of loss of appetite and loss of weight of 8 kgs. Patient was chronic smoker, non-diabetic and normotensive. On examination vitals were normal. Chest examination showed bilateral scattered rhonchi. Per abdominal examination revealed hepatosplenomegaly. Investigations showed haemoglobin 10 gm%, total leucocyte counts 5600/cumm, platelets 8000/cumm and ESR 86 mm. He had mild increased transaminases and other biochemical parameters were normal. Chest X-ray PA view showed bilateral hilar enlargement with thin walled cavity in left upper zone (Fig. 1). CECT thorax was done which revealed a thin walled cavitatory lesion in anterior segment of left upper zone with multiple centrilobular opacities in left upper and right middle lobe. Associated hilar and mediastinal lymphadenopathy was also noted (Fig. 2). ELISA for HIV antigen was positive. Bone marrow examination was done to evaluate thrombocytopenia, which showed Cryptococcus neoformans (Fig. 3). CSF examination was done and using India ink staining (Fig. 4) and elevated cryptococcal antigen latex agglutination titers identified cryptococcal yeast. CSF, blood culture and BAL culture showed growth of cryptococcus. He was also tested positive for hepatitis B, but antibody to hepatitis B e antigen was also positive. His CD4 count was 64 cells/mL and HIV viral load was more than 7.50 lakh copies/ml. Patient received inj. Amphotericin B along with Fluconazole. His headache, fever and thrombocytopenia improved. Thereafter, he was started on Lamivudine, Zidovudine and Efavirenz. During the course of therapy he developed cryptosporidium diarrhea along with herpes zoster infection.

Cryptococcosis caused by an encapsulated fungus Cryptococcus neoformans is a life threatening infections in HIV positive individual. The most common sites involved are central nervous system and lungs. Disseminated cryptococcal infection is an uncommon initial manifestation with acquired immunodeficiency syndrome and involvement of bone marrow is rare and was most likely the cause of thrombocytopenia in our patient.

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