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CASE REPORT

Common variable immune deficiency syndrome

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KEYWORDS

Common variable immune deficiency;
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Abstract A male patient 40 years old, non smoker, presented with fever, cough and expectoration of greenish sputum and diarrhea of 1 week duration. The condition started 3 years ago, by cough and expectoration of about cup/day of greenish sputum, not related to posture, along with fever up to 39 °C with loss of weight about 12 kg in one month and associated with diarrhea and mucus shedding. The patient sought medical advice and received empirical antibiotics and symptomatic treatments with partial clinical improvement. The patient showed multiple relapses of same respiratory and gastro-enterology symptoms every 3–4 weeks with 4 hospital admissions. CT-chest was done and revealed emphysematous changes with basal inflammatory reaction (Fig. 1); sputum workup showed no acid fast bacilli and growth of normal flora, fasting blood glucose was 102 mg/dl. A second CT-chest was done after one year and showed right sided pneumonic consolidation, bilateral pneumonic reaction with multiple mediastinal lymphadenopathy, bilateral pleural thickening and right encysted pleural effusion (Fig. 2).

Fibro-optic bronchoscopy was done and showed mucosal ulceration of the right lower lung segments with purulent discharge from that segments, BAL C&S showed gram stain mixed g-ve bacilli (proteus and pseudomonas), after 4 months, sputum C&S showed a growth of candida. There was no past or family history of relevant significance (Figs. 1 and 2).

Physical examination

There was a fever of 38–39.5 °C during the first 9 days of hospital course, chest clinical examination showed inspiratory coarse crackles all over chest.

Laboratory data

ABG on room air was (PH = 7.47, $PaCO_2$ = 28 mmHg, PO_2 = 73 mmHg, HCO_3 22 mEq/l, ABE −3.2, SO_2 = 96%), ECG showed sinus tachycardia, CBC revealed (WBC 22.200 (Neutrophils 82.2%), Hb 9.1 (normocytic normochromic), platelets (446.000), hypokalemia (K 2.0) which was corrected by IV potassium, fasting blood glucose, liver, kidney and coagulation profiles were normal. Sputum workup revealed no acid fast bacilli nor any pathogenic organisms, stool analysis showed entameba histolytica cysts, stool C&S revealed normal

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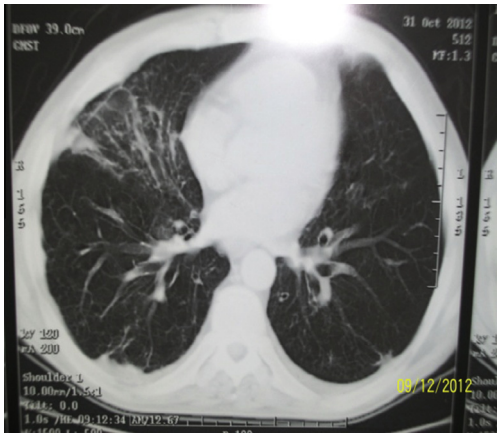

Figure 1 CT-chest showing emphysematous changes with basal inflammatory reaction.

flora. Colonoscopy was done up to cecum, examination revealed normal mucosa and vascular pattern with no evidence of ulcers, polyps or masses. ESR-1st hr 30, CRP 24, HIV-Ab, HBsAg, and HCV-Ab were negative. IGg < 50 mg/dl (N. 658-1837) and IGA was 36 mg/dl (N. 71-360). Chest radiograph revealed bilateral basal hetrogenous opacity (pneumonia), CT-chest showed Bilateral basal lung consolidative patches involving the lingual and right middle lobe and Bilateral minimal pleural effusion and thickening, pelvi-abdominal U.S. showed calcular gall bladder and mild splenomegaly, Echocardiogram revealed normal LV internal dimensions and normal systolic function, with estimated EF = 62%.

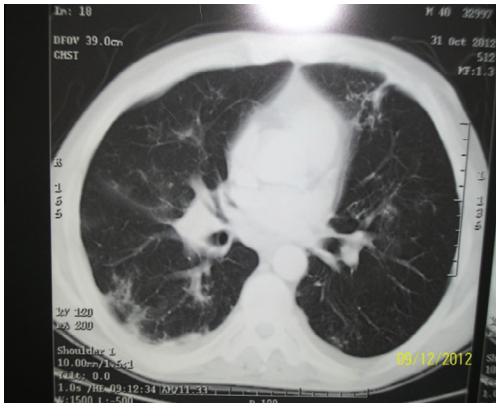

Figure 2 CT-chest showing Right sided pneumonic consolidation, bilateral pneumonic reaction with multiple mediastinal lymphadenopathy, bilateral pleural thickening and right encysted pleural effusion.

Immunology consultation suggested the diagnosis of "common variable immune deficiency" and adviced prophylactic therapy in the form of long acting penicillin/2 weeks, Septrin DS tab twice daily for 15 days, oral Ketrax 3tab every other day for 15 days and follow up in outpatient clinic.

Other tests recommended including C3, C4, Circulating immune complex, and Immunefixation, IgM, IgE titers.

Conflict of interest

None declared.