Nonchylous, massivehemorrhagic pleural effusion due to microfilaria - A rare case report

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ABSTRACT

Lymphatic filariasis is prevalent in tropical countries like India. Massive malignant pleural effusion with microfilaria is not reported. Here we present a case of a 72 years old male patient who presented with isolated breathlessness for few days. Evaluation revealed cause of pleural effusion to be malignancy and incidental detection of microfilaria in pleural fluid.

Key words : malignancy, massive pleural effusion, microfilaria.

Introduction :

In India lymphatic filariasis is prevalent. Association of malignant pleural effusion with microfilaria has been reported in various studies[1,2]. However there is no mention of massive pleural effusion due to malignancy associated with microfilaria.

Case Report :

A 72 yrs. old male from Nagpur Maharashtra presented to Respiratory Medicine OPD with chief complaint of breathlessness. It was not associated with fever chest pain, cough, expectoration or hemoptysis. Breathlessness was of short duration of 2-3 weeks and was progressive from mMRC II to III over the period of 3 weeks . He was Ex-smoker with smoking index of 42 pack years but non alcoholic. There was no significant past or family history.

Clinical examination revealed that patient was afebrile with increased respiratory rate 32/min, O2 saturation of 88% @ room air, blood pressure of 130/80 mm Hg. He had clubbing (grade III), and pallor. A mass of size 3x2 cm was noted in left infrascapular area, which was firm to hard in consistency, not fixed to underlying structure or skin. There were no other positive findings observed.

Respiratory system exam showed signs of left sided massive pleural effusion with mediastinal shift to right side but no adventitious sounds. Other systemic examination did not reveal any abnormality.

Chest X ray PA view showed Massive left sided pleural effusion. Since the patient was in respiratory distress therapeutic pleural aspiration was done soon after admission. Subsequently his lab Investigations showed Hb: 9.1 gm%, TLC 7,150 / cumm; N50%; L11%; M8%; E1.5% B0.2%.Sputum smear for AFB & malignant cells was Negative. He was negative for HIV status.

Pleural fluid was hemorrhagic, exudative with protein 4.2 gm/dl. Glucose : 58 gm/dl. ADA-8 IU. Cytology showed presence of Malignant cells with microfilaria (W. bancrofti) ***(Fig1).*** Repeated pleural fluid examination for AFB smear was negative. Midnight pleural (12 am) fluid sample was sent for cell block for confirmation of microfilaria, which was consistent with previous pleural fluid report. FNAC from the infrascapular swelling showed cytological features suggestive of metastatic deposits of Adenocarcinoma. USG & CECT Abdomen was Normal. CECT chest showed Massive pleural effusion left side with out any other abnormality.

Intercostal chest tube was inserted and 5200 ml of hemorrhagic pleural fluid was drained over a period

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of 8 days ***(Fig. 2)*** but patient did not show improvement either clinically or radiologically.

Patient was put on Diet hylcarbazine 100 mg three times a day for 21 days. Pleural fluid colour changed from hemorrhagic to clear over a period of one week. Clinically & radiologically patient improved. Since the patient was not ready for further treatment of malignancy he was discharged from hospital, so was lost to follow up.

Fig. 1 : Microscopic view of pleural fluid Showing microfilaria

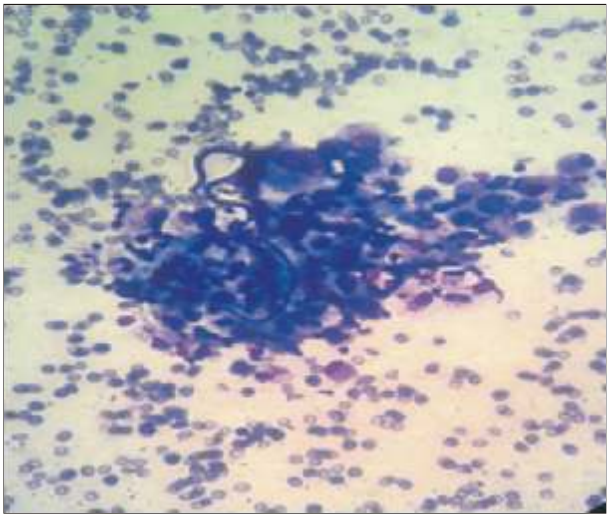
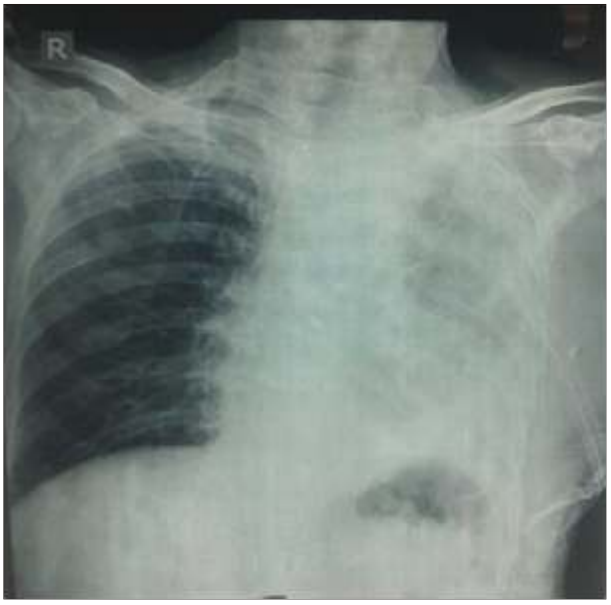


Fig. 2 : CXR of patient after 8 days of ICD



Discussion :

Filariasis is a public health problem in India. India contributes about 40% of the total global burden of filariasis[3]. Wuchereriabancrofti is the most widespread parasitic infecting humans. The major clinical presentations of filariasis include fever, asymptomatic microfilariaemia, lymphatic obstruction and tropical pulmonary eosinophilia. Diagnosis is made by demonstrating microfilariae in body fluids, whereas adult parasites are usually seen at the time of autopsy. There have been few case reports where Filarial microfilariae have been detected in association with malignancy[4-7]. Filarial effusions tend to be chylous in nature due to leakage of chyle from the occluded thoracic duct. Non-chylous effusions caused by microfilariae are rare. Exudative effusion may be due to Lymphangitis resulting from incomplete obstruction of lymphatics[4].Our patient also had exudative Nonchylous pleural effusion.

The host's immune response directed against the parasite lying in different lymphatic vessels appears to be the major factor in determining the clinical presentation. However, whether the immune response is due to the embryos, adult worm of larval antigens is not known. Exudative pleural effusion may be either due to partial lymphatic obstruction or through hypersensitivity reaction.

The most common cause of pleural effusion in India is tuberculosis. In cases where tuberculosis or malignancy is a remote possibility, Filarial aetiology can be considered, more so in the endemic areas or with recurrent pleural effusions.

At present, Diethylcarbamazineis a drug with highly selective effect on microfilariae (Mf)[8]. Ivermectin is the drug of choice for single dose treatment of onchocerciasis and strongyloidosis, and is comparable to DEC for bancroftian and brugian filaria8.

This case presentation is special in view that, this patient presented as massive haemorrhagic pleural effusion with microfilaria. Hemorrhagic pleural effusion is commonly seen in association with malignancy, but in this case, with start of DEC the

hemorrhagiceffusion changed its colour to clear fluid. This suggests that the hemorrhagic effusion was more likely due to filariasis.

Conflicts of Interest : None reported by authors

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Obituary

Dr. Mrs. Lata Patil - A Tribute

Barokar R[1]

Late Dr. Lata Surendra Patil
Ex Prof. & Head,
Department of Medicine,
IGGMC, Nagpur

Respected & Beloved, (Divekar) Patil Madam, left for heavenly abode on 18th October 2015.

Students from Department of Medicine in GMC &IGGMC, always knew Patil madam, as a true academician, teacher & Internist. Apart from being a learned, dedicated n empathetic doctor, madam was an epitome of uprightness, fearlessness carrying a capacity of calling a spade a spade.

All her postgraduate students had not only found a teacher in her but a motherly figure, mentor who had always guided, steered & brought back her students to the righteous path. And today all of her postgraduate, undergraduate students & her departmental colleagues owe her, respect her, thank her for leading them to that pinnacle of their carrier &fulfilment in life, wherein they could remain righteous, humble & sincere.

Not only a career woman,she was loving and caring family person. She was strongly supported by Dr. S. M. Patil at every step.

The hardcore sportswoman in Patil madam had imbibed winning, no-nonsense attitude, team spirit & humility in her approach towards life which was very evident even during that period of life when she was fighting tooth & nail with her illness, never giving up to the pain, agony and sufferings.

At her wittiest best, spark n wink in her eyes, madam surrendered herself to death as fearlessly as she lived during her Life.

We offer our tribute to her and condolences to her family

Salute to our Respected, beloved iron lady, Late Prof. Dr. Lata Divekar Patil.

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