

Mother with daughters

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A 29-year-old male presented to the outpatient department with complaints of cough, fever and coryza for the last 2 years. The patient was investigated and treated at various places for pneumonitis without any relief. The patient gave no history of any travel in the past and there was no history of contact with dogs, sheep or any other domestic or wild animals. Clinical examination was unremarkable, except few crepts in the right axilla. Chest radiograph showed an irregular cavity in the right mid and lower zones with a mass like-structure in the lower part, and he was provisionally diagnosed as a case of Aspergilloma [Figure 1]. Mantoux test was negative and the hemogram showed a TLC of 9,400/mm³, neutrophils were 50%,

lymphocytes 40%, eosinophils 9% and basophils 1%. Absolute eosinophil count was 850/mm³. Sputum was negative for AFB and gram's stain and fungal smear did not show any organisms. The skin test for aspergillus was negative. Total serum IgE was raised to 1250 IU/ml. Computed tomography (CT) of the chest was advised, which showed a cavity in the middle lobe with crescent sign positive, and the central mass was shifting its position with change in posture [Figure 2].

QUESTION

Q 1: What is the diagnosis?

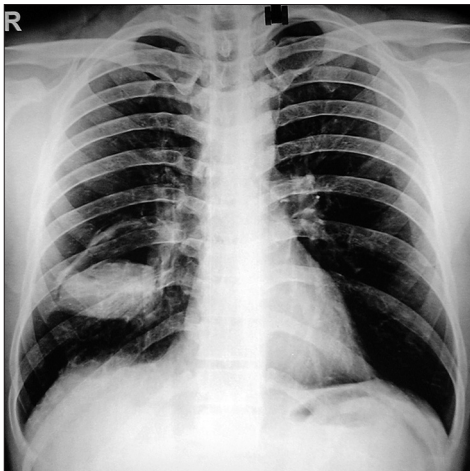


Figure 1: Skigram chest

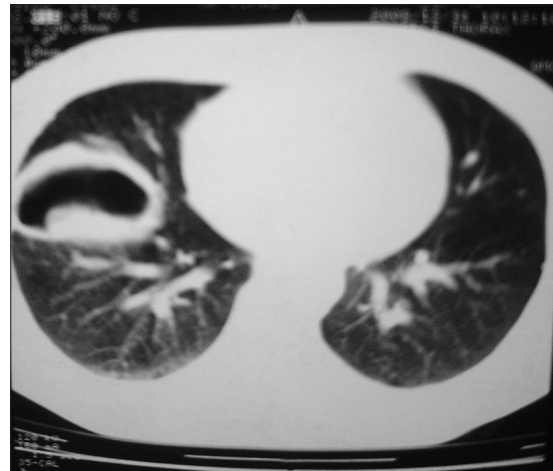


Figure 2: Computed tomography scan of the chest

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ANSWER

Hydatid cyst with multiple daughter cysts.

Skiagram chest showing a cavity with a gravity-dependent ball and a curvilinear lucency is suggestive of Aspergilloma. However, lung hydatid can imitate a number of diseases due to its radiological nature. It has been reported to present as hydro-pneumothorax,^[1] homogenous opacity without air-bronchogram^[2] and crescent sign.^[3] In areas like northern India, where hydatid cyst infestation is endemic, this fact should be taken into consideration by all means as a differential diagnosis. There is no sexual predilection, and the disease most commonly affects younger adults with an average age of diagnosis of 30–40 years, as was seen in our case. Children tend to have higher infection rates because they are more likely to play with pets. Many hydatid cysts remain asymptomatic, even into advanced age. Parasite load and the site and the size of the cysts determine the degree of symptoms. A history of living in or visiting an endemic area can greatly help in suspecting the disease,^[4] but it was negative in our case. The CT scan finding in our case misdiagnosed it as a case of Aspergilloma. Management involves surgery,^[5] which was carried out in this case. Middle and lower lobe lobectomy was done and dissection of the excised lung revealed a very sharply circumscribed hydatid cyst measuring 10 cm × 5 cm in diameter. On cutting the sac, hundreds of daughter cysts were seen within and around the hydatid cyst [Figure 3].

Bronchoscopy can be used to remove cyst membranes fully, and have been reported in the literature to achieve a complete cure in the hands of an expert bronchoscopist.^[6] Medical management involves Albendazole, Mebendazole and Praziquantel. Albendazole is administered in several 1-month oral doses (10–15 mg/kg/d) separated by 14-day intervals. Praziquantel is used as an adjunct to the therapy and is also given to the dogs to make them tapeworm free. Drugs are to be discontinued if liver functions are deranged significantly; there are reports of hepatic failure if drugs are



Figure 3: Mother with daughters

continued in such situations. The present case indicates that a high degree of suspicion should be kept in the mind for hydatid cyst or the diagnosis may be missed or confused with something else.

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