Calcified Guinea Worms in Breast

A fifty year old female from rural area attended medical OPD with a history of fever and productive cough of 6 days duration. Her routine blood investigations were normal. However, her X-ray chest revealed nodular, heterogeneous calcified opacities in both lower zones, possibly representing calcified guinea worms. On further interrogation she gave history of lumpish feeling in both breasts and a past history suggestive of guinea worm infection and that three times thread like worms had been taken out from her lower limbs. She was consuming unsafe drinking water from an open pond.

On examination hard nodular non-tender lumps were palpated in both breasts. Overlying skin was normal and there was no ulceration. Thereafter lateral views of X-ray chest (with breast stretched) were taken which revealed irregular nodular calcified shadows in the both breast tissues (calcified guinea worms). She refused consent for surgical excision of the calcified guinea worms and biopsy.

Guinea worm disease (Dracunculiasis) has been eradicated from India and Asia too. In India, the last reported case was in July 1996 and on completion of three years of zero incidence, India was declared free from Guinea worm disease. In our case, infestation must have taken place before eradication. Transmission of dracunculiasis now occurs in only few African countries.

Man acquires infection by drinking water containing infected cyclops. In the stomach these cyclops are digested by gastric juice and the parasites are released. They penetrate the duodenal wall, migrate through viscera to the subcutaneous tissues of the various parts of the body. They grow into adults into 9-12 months. The female grows to a length of 55-120 cm, and the male is very short 2-3 cm. After infestation many of these parasites (usually gravid female, as male dies) emerge out through skin, while few of them are lodged in the subcutaneous tissues, die, get encapsulated and calcified.

Upon contact with water, the female parasite releases up to one million, microscopic larvae which remain active in water for 3-6 days. They are picked up by small crustaceans called cyclops. The larvae require a period of about 15 days for development in cyclops, which is the intermediate host.

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Received : 31.8.2005; Revised : 8.10.2005; Re-revised : 1.2.2006; Accepted : 6.2.2006