

Calcified guinea worms in anterior chest wall: An incidental finding

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CASE REPORT

A 60-year-old female from rural area came to pulmonary out patient department with a history of cough and breathlessness since five months. She denied for fever, chest pain and hemoptysis. Her routine blood investigations were normal except total eosinophil count of 850/mm³. Her chest X-ray showed increased bronchovascular marking with curvilinear, coiled and serpentine calcification in the left upper zone suspecting calcified guinea worms (Figure 1). On examination a hard, crackling feeling present over left supra and infraclavicular region. Overlying skin was normal in color and texture. Past history suggestive of guinea worm infection with multiple times thread like worms had been taken out from her lower limbs. She was consuming unsafe drinking water from an open pond. Pulmonary function test revealed mild obstructive pattern. She advised for excisional biopsy of calcified guinea worm but did not give consent, later managed with bronchodilator and symptomatic treatment.

DISCUSSION

The dracunculiasis has been eradicated from many

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Figure 1: Chest X-ray zoomed at left upper zone showing multiple curvilinear, coiled and serpentine densely calcified shadows just above the clavicle (arrow) suggestive of calcified guinea worms.

countries of the world. The last reported case from India was in July 1996 and on completion of three years of zero incidences, declared free from Guinea worm disease [1]. Most probably, our case got infestation before the eradication.

Guinea worm disease (Dracunculiasis) is a parasitic infestation caused by a tissue nematode, *Dracunculus medinensis* (also known as serpent worm, dragon worm,

and Medina worm) transmitted to humans through ingestion of contaminated water from ponds and shallow, open wells which contain immature forms of the parasite in the gut of tiny crustaceans (copepods- Cyclops) [2]. In the due course, these parasites are released following digestion of the Cyclopes by gastric juice in the stomach [3]. The worm penetrates the gut mucosa and migrates into subcutaneous tissues. Some worm (usually gravid female) emerges through a skin lesion while few of them lodged in subcutaneous tissue, die, get encapsulated and calcified. The mature female worm may cause a skin blister, a sterile abscess, an acute aseptic arthritis or an asymptomatic calcification [4]. A painful blister forms at site of emergence which rupture into contact with water to continue the life cycle. An allergic reaction occurs just prior to rupture in 30–80% of patients manifesting as rash, fever, urticaria and bronchial asthma. The radiological differential diagnosis includes hydatid disease, filarial infestation, cysticercosis and porocephalus [4]. There is no effective vaccine or medicine is available till date to treat or prevent guinea worm disease, although various benzimidazoles/nitroimidazole may have an anti-inflammatory action, aiding elimination. Since antiquity, winding worms out on a stick, a few centimeters a day, has been practiced and is still useful, along with antibiotic dressing to prevent secondary bacterial infection. The calcified worms represent dead parasite and asymptomatic in the majority of cases requiring no treatment like in our case [2].

CONCLUSION

Calcified guinea worms in chest wall are important for chest physicians because few patients may present with this type of X-ray picture and respiratory pathology is not always present in such cases.

Keywords: Calcified, Chest wall, Dracunculiasis, Guinea worm, Medina worm

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Guarantor

The corresponding author is the guarantor of submission.

Conflict of Interest

Authors declare no conflict of interest.

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REFERENCES

1. Mathur S, Gahlot RS. Calcified guinea worms in breast. *J Assoc Physicians India* 2006 Mar;54:201.
2. Hakim FA, Khan NN. Dracunculiasis. An incidental diagnosis in a Saudi female. *Saudi Med J* 2007 Sep;28(9):1438–40.
3. Hopkins DR, Ruiz-Tiben E, Ruebush TK, Diallo N, Agle A, Withers PC Jr. Dracunculiasis eradication: delayed, not denied. *Am J Trop Med Hyg* 2000 Feb;62(2):163–8.
4. Stelling CB. Dracunculiasis presenting as sterile abscess. *AJR Am J Roentgenol* 1982 Jun;138(6):1159–61.

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