Subcutaneous Dirofilariasis of Forearm - An Unusual Presentation in Human

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Abstract: Human subcutaneous dirofilariasis (HSD) is a rare zoonotic infection caused by filarial worms of the genus Dirofilaria. Recently it has been considered as emerging zoonotic infection. It is transmitted to man by zooanthrophilic blood sucking insects. The human dirofilariasis recorded in India are mostly ocular and very few cases are extra-ocular. We hereby present a case of subcutaneous dirofilariasis of forearm in human.

Keywords: Dirofilariasis, forearm, human, subcutaneous

1. Introduction

The human beings are infected with species of filariasis normally found in animals. Among these zoonotic infections, the commonest is that reported due to Dirofilaria species—Dirofilaria repens or Dirofilaria immitis. The lung lesions are caused by Dirofilaria immitis while the subcutaneous lesion is caused mostly by Dirofilaria repens. It is transmitted by the bite of mosquito especially of anopheles, aedes and culex species.

The principal reservoir of D. repens is the dog and humans are accidental hosts with patent infections being extremely rare. Differential diagnoses of human subcutaneous dirofilariasis (HSD) include neoplasia and other granulomatous diseases and a definitive diagnosis usually requires surgical removal and examination of a lesion.

Majority of cases of human dirofilaria are reported from southern and eastern Europe, Sri Lanka, Italy, France, Greece and Spain. Human dirofilaria has not been widely recognized in India but cases have been reported from Assam, Maharashtra, and parts of Karnataka¹,². We present this case because of very few cases of subcutaneous dirofilaria have been reported and most of the documented cases being dirofilaria associated with ocular infections³.

2. Case Report

A 22-year-old male patient presented with painless mass in the left forearm for past 5 months. On examination the mass was measuring approximately 3 × 2 cm situated in the volar aspect of the proximal forearm 3 cms below the elbow crease. The mass was mobile, firm, non-tender with well-defined margin and subcutaneous in location. All other systemic examination and laboratory investigations were normal. It was clinically diagnosed as sebaceous cyst and advised complete excision of the mass for definitive diagnosis. The excised mass was 3 × 2 cm and grey-white. The cut surface was grey-white with necrotic areas.

Figure 1
Forearm mass: Measuring approximately 3 × 2 cm situated in the volar aspect of the proximal forearm 3 cms below the elbow crease

Hematoxylin and eosin stained sections showed cross-sections of nematode, which is surrounded by an inflammatory granulation tissue composed of eosinophils, lymphocytes, and occasional foreign body giant cells. An outer surface of the nematode shows cuticle showing fine transverse striations and prominent longitudinal ridges with these features the worm was identified as an adult, female.

Figure 2

References:

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In summary, dirofilariasis should be included in the differential diagnosis of subcutaneous nodules especially in an endemic area. Although rare in subcutaneous form adequate investigative work-up and treatment is essential for recovery.

References


Author Profile

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Dr Rajesh S, Associate Professor, Father Muller Medical College, Mangalore, Karnataka. He has been a person actively involved in research papers, various conferences and has also published numerous research papers.