

Dirofilaria in the abdominal wall: A rare surgical surprise

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Introduction

- Dirofilariasis is an uncommon mosquito born zoonotic infection caused by Dirofilaria species like Dirofilaria repens, D. immitis.
- The reservoirs of dirofilarial species are domestic and wild canids.
- Humans are accidental hosts.
- These manifest as localized, firm swellings that mimic common surgical conditions like lipoma, sebaceous cyst and rarely involve abdominal wall.

Case Details

- A 47-year-old female presented with a one-week history of painful swelling in the right upper abdomen.
- Clinical examination: an erythematous, tender right hypochondriac swelling of size 2cm x 2cm with no punctum, smooth surface, soft in consistency, non transilluminant, with local rise of temperature,

fluctuation test positive, provisionally diagnosed as an infected sebaceous cyst.

Investigations

Ultrasonography of abdominal wall: Well-defined 2.2 cm x 2.0 cm sized heterogeneously hypoechoic lesion noted in the deep subcutaneous plane in right hypochondrium region of abdomen, shows posterior acoustic enhancement, lies anterior to the muscle plane with no internal vascularity and with minimal inflammation of the surrounding fat-features suggestive of sebaceous cyst.

Surgery

- The patient underwent excision of the swelling under local anaesthesia.
- Intraoperative finding: thin, whitish live worm identified.
- Morphological examination: confirmed the parasite as a Dirofilaria species.

- The postoperative period was uneventful, and was given tablet Diethylcarbamazine citrate [DEC] 150mg BD for 3 weeks and the patient recovered without recurrence.

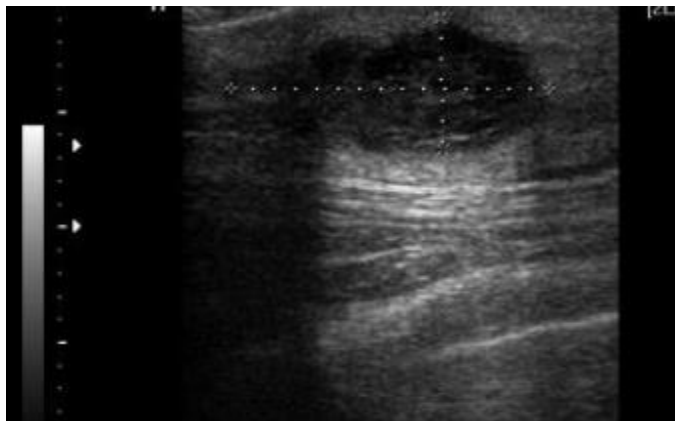


Figure 1



Figure 2



Figure 3



Figure 4

Discussion

- Although *Dirofilariasis* is increasingly reported in tropical and subtropical regions, abdominal wall involvement is exceedingly rare, leading to frequent misdiagnosis as common surgical conditions such as sebaceous cysts or lipomas
- Preoperative diagnosis is difficult due to nonspecific clinical and imaging characteristics.
- Consequently, most cases are diagnosed intraoperatively and confirmed on morphological examination, where the worm's thick cuticle and internal architecture are identifiable.
- Surgical excision remains both diagnostic and curative.

Conclusion

- This case reinforces the need for surgeons to consider parasitic etiologies in benign cystic lesions in endemic regions.
- The rarity of abdominal wall *dirofilariasis*, combined with its ability to mimic benign surgical lesions, highlights its clinical significance.

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