

## Human Cutaneous Dirofilariasis Caused by *Dirofilaria repens*

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**Citation:** Mattutzu V, Nourrisson C, Theis C, Chevenet C, Poirier P, Moniot M. Human Cutaneous Dirofilariasis Caused by *Dirofilaria repens*. *Dermatol Pract Concept*. 2024;14(2):e2024102. DOI: <https://doi.org/10.5826/dpc.1402a102>

**Accepted:** September 7, 2023; **Published:** April 2024

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**Funding:** None.

**Competing Interests:** None.

**Authorship:** All authors have contributed significantly to this publication.

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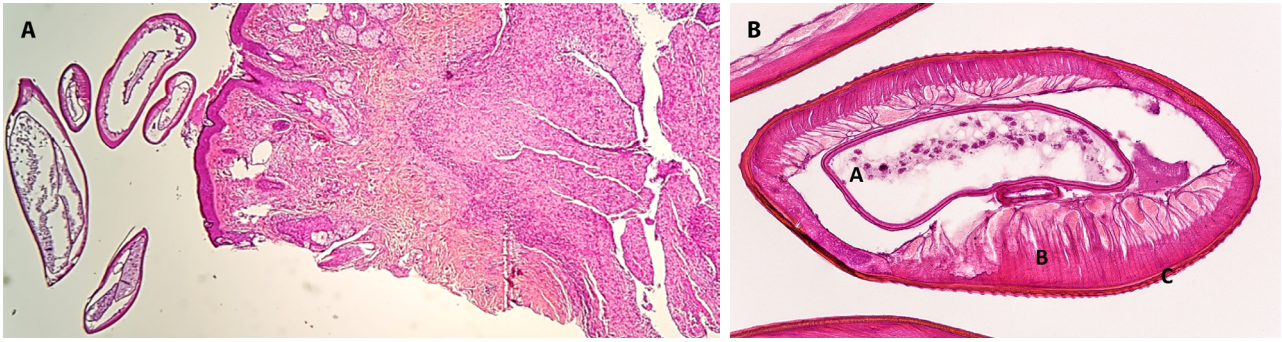
### Case Presentation

A 63-year-old female was seen with a purplish subcutaneous nodule located above the glabel and measuring 6 mm in diameter. The lesion had a rapid onset and was followed, two days later, by a wing nose edema, suggestive of granuloma. The patient had no particular medical or travel history. The biological work-up did not show abnormality. Histological exam revealed a granulomatous reaction of the hypodermis, partly suppurated, with an adult worm (Figure 1A). Section of the worm measuring about 500 µm showed the genital tubes, the muscle layer and a thick cuticle of 12 µm, laminated, with longitudinal striation (Figure 1B). *Dirofilaria repens* was suspected and confirmed by sequencing [1].

In addition to the surgical excision, the patient received a single dose of ivermectine, with no sign of recurrence six weeks later.

### Teaching Point

Dirofilariasis is a cosmopolitan mosquito-transmitted disease involving nematodes of the *Dirofilaria* genus. Both *D. repens* and *D. immitis* are endemic in the Mediterranean region. The definitive hosts of *D. repens* are canids and rarely felids, Human being accidental host. *Dirofilaria repens* usually manifests as either a wandering worm in the subcutaneous tissue or a granulomatous nodule, mostly



**Figure 1.** Microscopic examination of the excised nodule at the time of diagnosis after H&E staining. (A) Superficial dermis and epidermis with sections of the worm in surface ( $\times 100$  magnification); (B) Section of the worm showing the genital tubes (a), the muscle layer (b), the cuticle with characteristic external longitudinal ridges (c) ( $\times 400$  magnification).

located in ocular and facial regions, whereas *D. immitis* usually causes pulmonary diseases. In the subcutaneous form, the elevation of blood eosinophils is inconstant. Surgical removal of the nodule is the definitive and curative treatment of dirofilariasis.

## References

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