

Figure 2 (a) Histopathology of vulvar syringoma showing small ducts, lined by two rows of epithelial cells with a typical comma-shaped tail, embedded in a fibrous stroma, within the papillary and reticular dermis (HE $\times 40$). (b) CD117 expression by numerous mast cells throughout the stroma of vulvar syringomas ($\times 40$). (c) Light-stained mast cells (arrows) in vulvar syringomas (Giemsa $\times 400$). (d) Dark-stained mast cells in perivascular distribution (arrows) after treatment (Giemsa $\times 400$).

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REFERENCES

1. Young AW, Herman EW, Tovell HMM. Syringoma of the vulva: incidence, diagnosis and cause of pruritus. *Obstet. Gynecol.* 1980; **55**: 515–8.
2. De Filippis D, D'Amico A, Cinelli MP *et al.* Adelmidrol, a palmitoylethanolamide analogue, reduces chronic inflammation in a carrageenin-granuloma model in rats. *J. Cell Mol. Med.* 2009; **13**: 1086–95.
3. Mertz H, Veien NK. Eruptive syringoma mimicking urticaria pigmentosa. A case report. *Acta Derm. Venereol.* 1995; **75**: 156–7.

4. Claudy AI. Adult-onset urticaria pigmentosa and eruptive syringomas. *J. Am. Acad. Dermatol.* 1988; **19**: 135.
5. Dionisi B, Senatori R. Aliamides in the treatment of vulvodynia. *G. It. Obstet. Gynecol.* 2015; **57**: 121–6.

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Case Letter

Dear Editor,

Migratory, recurrent skin eruption in a returning traveller

Gnathostomiasis is a rare entity in Europe that is being increasingly reported in travellers returning from Asia or Latin America.¹ We report the case of a 35-year-old woman with aplastic anaemia in remission who presented

Conflict of interest: none.

to the dermatology clinic with a 4-day history of a nodular eruption on her right arm. The lesions were occasionally painful and pruritic and some had spontaneously resolved as others appeared. She had travelled to China and Vietnam 2 months previously. On physical examination her vital signs were found to be within normal limits. She had two warm erythematous nodules on her right arm (Fig. 1a), and a skin biopsy performed demonstrated eosinophilic panniculitis (Fig. 1b). Blood tests showed mild eosinophilia (7% of total white blood cell count, with 410 eosinophils per μL). A gnathostoma immunoblot test was performed and was reported positive. The patient was treated with albendazole 400 mg twice daily for 21 days. She remained asymptomatic for 18 months, but soon after her eosinophil count rose again and she developed new crops of similar migratory lesions that became resistant to a second course of albendazole (Fig. 2). Ivermectin 0.2 mg/kg over 2 days separated by a week was prescribed, resulting in a complete resolution of signs and symptoms. She remained asymptomatic after 6 months of follow up.

Gnathostoma spp. are tissue nematodes that cause infection in humans, typically after they have ingested

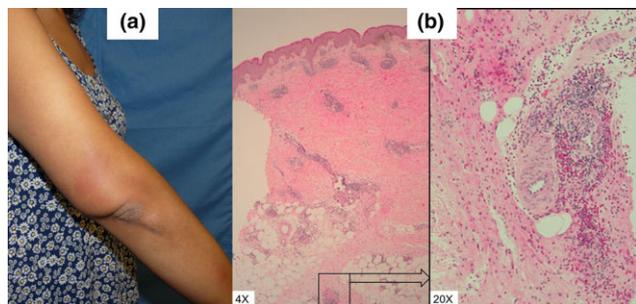


Figure 1 (a) Image at first presentation showing two erythematous nodules on the posterior side of the right arm. (b) Histopathological images showing a superficial and deep perivascular infiltrate with many eosinophils in the dermis and subcutaneous tissue (eosinophilic panniculitis). (b, Hematoxylin-Eosin stain; original magnifications $\times 4$ and $\times 20$).



Figure 2 Clinical image at relapse, 18 months later.

undercooked fish and poultry.¹ The most frequent presentation is a migratory eosinophilic panniculitis² that may arise as early as 3 weeks after ingestion of the larvae. The eruption may be asymptomatic, slightly pruritic and painful. The larvae may migrate to other organs including the central nervous system, leading to severe complications. A skin biopsy commonly demonstrates an eosinophilic panniculitis.³ The isolation of the larva confirms the diagnosis, but this can be difficult due to its migratory nature. Diagnosis relies on serology testing when available. Immunoblot testing with a specific antigen to *Gnathostoma spinigerum* (a 24-kDa band of the third stage larvae) has the highest specificity and sensitivity, both being close to 100%, and is superior to enzyme-linked immunosorbent assay testing, a technique which can cross-react with other helminths.¹ Treatment options include albendazole or ivermectin. A 12-month follow up has been recommended in order to rule out the possibility of treatment failure and relapse,⁴ yet our patient's experience underlines the need for a longer period. Recent reports suggest that gnathostomiasis may become a public health problem in countries where live fish are imported from endemic areas.⁵

A migratory skin eruption in a returning traveller should raise suspicion for this entity and appropriate testing should be included in the diagnostic work-up. Our patient's experience underlines the need for long term follow up, a high index of suspicion for infection relapse and close monitoring of eosinophil levels.

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REFERENCES

- Herman JS, Chiodini PL. Gnathostomiasis, another emerging imported disease. *Clin. Microbiol. Rev.* 2009; **22**: 484–92.
- Rodríguez-Díaz EACC, Blanco Barrios S, Galache Osuna C *et al.* Eosinophilic dermatoses. *Actas Dermosifiliogr* 2005; **94**: 131–45.
- Jarell AD, Dans MJ, Elston DM *et al.* Gnathostomiasis in a patient who frequently consumes sushi. *Am. J. Dermatopathol.* 2011; **35**: e91–5.
- Strady C, Dekumyoy P, Clement-Rigolet M *et al.* Long-term follow-up of imported gnathostomiasis shows frequent treatment failure. *Am. J. Trop. Med. Hyg.* 2009; **80**: 33–5.
- Diaz JH. Gnathostomiasis: an emerging infection of raw fish consumers in gnathostoma nematode-endemic and nonendemic countries. *J. Travel Med.* 2015; **22**: 318–24.