Human Botfly Infestation: Furuncular Myiasis

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Dermatobia hominis is one of many species of botflies whose larvae is parasitic to humans and is uniquely indigenous to Central and South America. The larvae of the human botfly gain nutrients to survive by feeding underneath mammal skin. As a consequence, within 24 hours, small 2-3mm painful, erythematous, draining, and purulent papules with a classical air-pore develop as the initial cutaneous sign. At first, the lesions resemble that of an insect bite, but over time they enlarge to 10-35mm in diameter with a surrounding area of induration. The most common areas where the larvae are cutaneously deposited include the upper and lower extremities, scalp, and back. Of note, systemic symptoms are not typically described, but more mild constitutional findings such as malaise, insomnia, and lethargy are found in the literature.

Our case involves a 38-year-old man who presented with what he suspected to be a mosquito bite on his upper lip after returning from Belize 2 months prior. A week after his return to the United States, the patient noted a swollen and tender area of erythema on his face, which did not respond to Cefalexin treatment. The site developed into a furuncle that consisted of pustular drainage and serosanguinous fluid. Upon presenting to dermatology clinic, a small speck within the furuncle was noticed. A worm became visible but would retract its head during subsequent extraction attempts. Vaseline was applied in effect to smother the larva which led to the worm poking its head out for air and confirmed our suspicion.

We concluded that *Dermatobia hominis'* eggs injected into our patient's skin when a mosquito (with botfly eggs attached to the stomach) bit him during a scuba diving excursion. The eggs developed into their larvae form in his healthy tissue, and led to the presenting furuncular myiasis seen in clinic. Attempts to surgically extract the larva were limited due to the retraction of the head, and Vaseline attempts to suffocate the larva were unsuccessful due to the size of the central air-pore. Ultimately, the patient underwent injection with lidocaine with epinephrine which caused the larva to become expelled under the high pressure, and the area was able to be incised and debrided. This case is important to further classify the cutaneous manifestations of human botfly infestations and in the prevention of secondary bacterial infections or granuloma development in patients post-extraction.