

## Parasitic botfly infection of a child in central Virginia



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### INTRODUCTION

Myiasis has largely been considered a rare, exotic condition in the United States.<sup>1</sup> This perception often delays diagnosis, resulting in unnecessary pain and frustration for patients.<sup>2</sup> Here we describe the unusual case of an 11-year-old girl who was parasitized by a cuterebrid botfly after a day trip in August of 2016 to Smith Mountain Lake, Virginia.

### CASE PRESENTATION

In August of 2016, an 11-year-old girl presented to her family physician with an elliptical 20- × 5-mm erythematous, furuncle on the right side of the neck 5 days after a day trip to Smith Mountain Lake in Virginia. She was seen by her family physician and reported dysphagia, localized pruritus, and dyspnea. Her medical and social histories were insignificant for prior exposure to wild animals, recent travel outside of Virginia, or any other medical conditions. She was empirically treated with antibiotics, corticosteroids, and nebulization. Treatments resulted in no improvement, with exacerbation of symptoms to include diffuse swelling on the neck, worsening dysphagia, exquisite pain and tenderness, and increased pruritus. The lesion further developed into an elliptical, raised abscess with an indurated center that measured 35 × 20 mm (Fig 1). Twelve days after the onset of her symptoms, after application of a warm compress, the child's mother manually expressed a single cream-colored, 6-mm larva from the abscess (Fig 2). Subsequent analysis of the larva by Centers for disease Control and Prevention entomologists resulted in the identification of a cuterebrid botfly maggot.

### DISCUSSION

Botfly parasitism has occasionally been reported along the eastern coast of the United States, although human infestations are rare. Most infections actually



Fig 1. Abscess on day 10 of infection.



Fig 2. Botfly maggot at early instar.

originate from traveling abroad, and a lack of travel history can pose an investigative problem to physicians unfamiliar with parasitic infection.<sup>3</sup> In fact, as of 2003, only 56 cases of myiasis within the United States have been identified in the previous 60 years.<sup>2</sup> As of 2014, only 3 reports of myiasis resulting from direct infection of wounds in the head and neck have been identified.<sup>4</sup> This finding highlights the importance of reporting parasitic infections to allow for updated information.

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The more common hosts for *Cuterebra* species are rodents such as squirrels, rabbits, or chipmunks, making this an interesting case study.<sup>2</sup> As in the presented case, larvae often only reach an immature instar phase before they are removed, making it difficult to definitively identify the species. Typically, infections occur during the late summer months, and *Cuterebra emasculator* is often implicated.<sup>3</sup> Updating physicians on the local presence of this parasite will better inform clinical practice and allow for epidemiologic monitoring of invasive larval infections.

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