

# Unexpected Ant Bites

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## Abstract

Allergic reactions to insect bites and bee stings are frequently seen. In some cases, angioedema may be seen, more so in the pediatric age group. However, angioedema after an ant bite is a very rare condition. In this case, we present a young child who developed angioedema after being bitten by black ants on his penis and scrotum while playing in a rural area. The patient was given both prednisone and antihistamines and ice therapy in the emergency room. After the treatment, the patient's complaints of pain, swelling and redness decreased. With this study, we have shown that even ant bites in children can cause serious allergic consequences. Parents should be careful about serious allergic emergencies that may occur after insect bites/stings in children.

**Keywords:** Angioedema, ant bite, child, penis

## Introduction

Bees are the first in line among insect stings or bites seen in humans (1). The penis, in particular, has drawn the wrath of animals and insects (2). After bee stings, severe allergic reactions such as angioedema and even anaphylaxis are more common in the young and pediatric age group (1). The most common signs and symptoms are stinging pain, edema and redness at the site of the sting. A temporary, sometimes episodic, non-pitting edema involving the subcutaneous or submucosal tissue is called angioedema. Angioedema, seen in the pediatric age group, can also occur after insect bites (3). When we conducted a literature review on the subject, we found that the published cases were mostly allergic reactions in the cornea, penis and mouth regions due to bee stings (4). However, cases with serious symptoms after ant bites are rare. This study will show that angioedema occurs in the penis and scrotum after the bite of black ants, which is quite rare.

## Case Report

A 6-year-old boy, who went on a picnic with his family, suddenly reported pain in his penis and scrotum to his parents. When his mother and father opened their child's clothes and checked, they saw black ants. They saw redness

and slight swelling in the scrotum and penis. They brought the child to the emergency room because of his persistent pain, crying and restlessness. Approximately 60 minutes had passed since the incident when the patient arrived. The blood pressure, pulse, respiration and temperature values measured in triage were within normal ranges. In the physical examination, it was observed that the penis was painful and edematous, and the scrotum was both edematous and ecchymotic (Figure-1).

No pathology was detected in the blood values (hemogram, biochemistry) studied in the laboratory. No pathology was seen in the testicles in the superficial tissue ultrasound. The patient was given intravenous (i.v) antihistamine (1 mg/kg pheniramin emaleate) in physiological serum and i.v. 2 mg/kg methylprednisolone was administered. Tetanus vaccination prophylaxis was also administered. Intermittent ice application was performed for the swelling in the penis and scrotum. After approximately 2 hours, there was a significant regression in the swelling and the pain decreased. The child, whose findings and complaints regressed during the control examination, was discharged with a prescription after a total of 8 hours of observation. The swelling and redness had completely disappeared in the child who came for control the next day; however, mild induration could be felt in the scrotum with palpation.

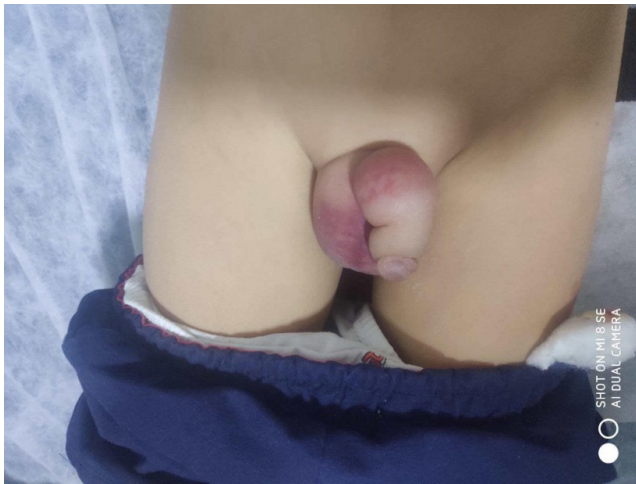
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**Figure 1.** Skin findings on the penis and scrotum

## Discussion

People can be bitten or stung by different insects. Bee stings are the most common among these (5). The most common signs and symptoms that occur after insect bites are pain, redness and edema (1). Various allergic reactions can be seen in bee stings, ranging from mild skin findings to anaphylaxis. After ant bites, pain, swelling and redness may occur in the bitten area; however, angioedema is not an expected result. The areas bitten by ants are usually the limbs (6). In our case, the bite area was the penis and scrotum. More than half of the population living in areas where ants are densely populated are bitten every year (7). Since the region where the incident in our case occurred has cold climate conditions, the ant population is rare.

The reactions seen in more than half of the children exposed to insect stings/bites are usually limited to the skin. Although angioedema is observed in some cases, anaphylactic shock is almost non-existent (8). Delayed reactions such as coagulation disorders, vasculitis, peripheral neuropathy and serum sickness may be observed days after insect stings/bites (9). In our case, an early-type allergic reaction with pain and mild redness in the penis and scrotum was reported in the first minutes of the ant bite. On examination in the emergency room, angioedema was observed with increasing pain, but anaphylaxis was not observed. There was a local involvement limited to the penis skin and scrotum. Regardless of the cause, H1 and H2 antihistamines are preferred in the treatment of allergic angioedema to reduce itching and inflammation,

while steroids can also be added to the treatment (10). The prognosis is usually good in ant bites among insect stings, and the patient's symptoms regress without the need for treatment. However, the possibility of anaphylaxis, although rare, cannot be ignored, and early diagnosis and treatment are of vital importance. The angioedema in our case rapidly regressed after the first treatment and was discharged.

## Conclusion

To protect against possible insect bites/stings, long-sleeved clothing should be worn in open areas. Also, colorful clothing that looks like flowers should be avoided. Considering that they usually enter at ankle level, this entry way should be covered with socks. It should be kept in mind that angioedema may develop in children in the event of any insect bite despite all precautions, and a health institution should be consulted without delay.

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