

Case reports

Cydnidae (Burrowing Bug) Pigmentation in Sri Lanka

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Introduction

Insects belonging to family Cydnidae are commonly known as burrower (or burrowing) bugs. Many of them live in soil and feed on roots and underground parts of plants¹. They are generally considered harmless to humans. But recently pigmentation due to Cydnidae insects has been described from India². Here we describe three similar cases from Northern Sri Lanka.

Case history

Case 1

In May 2017, a young girl-student of a university college - presented to our skin clinic with sudden onset of asymptomatic reddish brown macules on soles of both feet (Figure 1). Lesions were noted a day after she had returned to her hostel following a long holiday. Numerous small insects were found crawling on the floor of wash room which she had cleaned barefoot previous night. Her roommate who returned with her also developed similar lesions. Similar brown macules of varying size and shapes were observed on dorsum of hands, finger tips and lower leg (Figure 2).



Figure 1. *Reddish brown macules of varying sizes and shapes on soles.*



Figure 2. *Brown macules on finger tips (A) and lower leg (B).*

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Case 2 and 3

Few days after the case 1, two health care workers (one medical officer and a nursing officer) presented with asymptomatic brown macules on neck and legs of few days duration. Lesions were streaky and curvy linear and comma shaped.

Considering the asymptomatic nature of the lesions and the history of causal association of pigmentation to contact with insects, probable diagnosis of exogenous pigmentation of insect origin was considered in case 1 and similar aetiology was postulated in other two cases. None had features of blister beetle dermatitis. All lesions gradually faded over 7 to 10 days without any treatment.

Discussion

Pigmentation similar to our cases has recently been described in India² and Cydnidae insect (*Chilocoris assmuthi* Breddin 1904) been identified as the cause of the pigmentation. This species *Chilocoris assmuthi* Breddin (suborder Heteroptera; superfamily, Pentatomoidea; family Cydnidae; subfamily, Cydnidae) is distributed throughout the Asia including Sri Lanka but rare in urban areas^{1,3}.

The presence of dorso-abdominal scent glands is a feature characterizing the suborder Heteroptera⁴. Their number and patterns are regarded as distinctive for families within the Heteroptera⁴. These glands are found in the thorax in adult Pentatomoidea and in the lateral part of the abdomen in nymphs^{1,4,5}. The

secretions of these glands contain poorly studied mixture of hydrocarbons and other derivatives that functions as repellent, cause paralysis in prey and chemical defence against microbes⁵.

If one of these bugs is firmly pressed between fingers for few seconds, reddish brown macules would appear almost immediately at the site of contact². Even though we could not identify the insect, clinical history, appearance and evolution of lesions strongly suggest the same aetiology.

References

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