ORIGINAL ARTICLE

BLISTER BEETLE DERMATITIS IN RAMA UNIVERSITY CAMPUS

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ABSTRACT: Blister Beetle Dermatitis or Paederus Dermatitis is a type of irritant contact Dermatitis which is seasonal in nature. According to habitat of Beetles, the dermatitis occurs before during or after rainy season. The Dermatitis is usually linear with visico-bullous eruptions. These insects are nocturnal and attracted by light. The Beetles release their body fluid (Pederin) when touched to remove them from a person's body at night. In India, the commonest Beetle specy is Paederus Melampus. The insects also helped farmers by eating pests in agricultural field.

KEYWORDS: Dermatitis –Skin infection, Beetle -A flying insect.

INTRODUCTION: Blister Beetle Dermatitis is also known as Paederus Dermatitis, is a type of irritant contact dermatitis with history of sudden onset with erythematous vesicobullous lesions on exposed areas of body. The Genus Paederus belongs to family staphyllinidae, order coleoptae, class insecta. Blister Beetle Dermatitis may be caused by different species of Beetles producing cantharidin (Spanish fly used for aphrodisiac) used for treatment of warts and molluscum. Pederin producing Beetles are also known as Rove Beetles. Beetles are distributed world wide and are associated with out breaks of seasonal Dermatitis in various countries. Depending upon the habitat of the Beetles, the Dermatitis may be seen before during or after rainy season. In north India Blister Beetle Dermatitis is common in month of April, May and June as observed by the author.

AETIOLOGY: In India, Beetle dermatitis is commonly caused by specy Paederus melampus or nettle police. Adult Beetle is usually 7-10 mm long and 0.5 mm wide a little larger than a mosquito and are nocturnal. These Beetle do not bite or sting but when provoked, release a body fluid (for their own protection) which causes blistering eruption.

They are terrestrial and feed on decaying materials of animals and plants. They come into homes at night being attracted by light. Beetles have two pair of wings and three pairs of legs. Even though, these insects can fly, they prefer to run when they are disturbed like trying to remove them by reflex action of hand. They have a peculiar habit of curling up their abdomen and release their body fluid for their own protection when they are disturbed Chemically Pederin is $C_{25}H_{45}O_9N$.⁽¹⁾

NECK INVOLVEMENT:

Neck Involvement

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CLINICAL FEATURES: Patients generally notice redness and vesico-bullous eruptions usually on exposed parts of body on awakening in the morning and cannot remember any contact with beetles. There may be mild itching, pain or burning sensation in the lesions. There may be more than one lesions. Lesions are usually linear (Whiplash). When the lesions occur in body folds like flexor of elbow or axilla, they form kissing lesions or touching lesions due to contact with two skin surfaces. Conjunctivitis caused by *paederus sebaeus* in East Africa is called Nairobi eye.⁽²⁾ The Dermatitis may affect persons of all ages, races, sexes and all social strata. The lesions may be erythematous and oedematous and heal with-in one week or 10 days. It may leave hypo or hyper pigmentation in the affected areas. Secondary infection can occur with pustules formation. There may be enlargement of regional lymph nodes. Some of the lesions may be necrotic. Ocular and genital lesions are common and ocular lesion is usually unilateral. One girl was having a lesion below her left breast which caused kissing lesions on left side of her chest wall.

HISTOPATHOLOGY: Blisters are either intradermal or Subepidermal. Acantholysis and epidermal necrosis are seen. In some lesions acanthosis is also seen. Intra epidermal infiltration of neutrophils are present. In dermis, there is perivascular infiltration of lymphocytes and neutrophils. There may be edema of dermis.

DIFFERENTIAL DIAGNOSIS: Beetle dermatitis or *paederus* dermatitis should be differentiated from Herpes Simplex, Herpes Zoster, different forms of contact dermatitis, Phyto-Photo Dermatitis, Insect bites and drug eruptions. The characteristic nocturnal sudden onset, linear fashion of lesions, occurrence of similar cases in a given locality and biopsy will enable a doctor to reach at a correct diagnosis.

In case of Insect bites there will be mark of punctum, tooth mark or sting marks and pain will be a marked feature.⁽⁴⁾

DISCUSSION: Majority of staff and students belong to Medical college. Because of pressure of studies, medical students are awakened late at night keeping room lights on attracting Beetles.⁽⁴⁾ A lot of agricultural field and bushes are present around the university which serves as insect's habitat. Beetles are attracted at night by high powered orange street lights in the university campus.⁽⁵⁾ Blister beetle dermatitis in the campus started early this year because of pre-monsoon rain. Samples of patients are taken randomly.

PREVENTION: Doors and windows at homes should be fitted with iron nets. Mosquito nets should be used at night by students and staff. People should use full length dresses at night. Measures should be taken to eradicate insects in house and environment.

Staff	Male	10
	Female	4
Students	Male	4
	Female	8
Other	Male	13
Table 1		

Skin O.P.D. Patients

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