



Case Report

A rare case of diffuse penile phytocontact dermatitis caused by common greenbrier

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ABSTRACT

Penis size has always been a considerable concern to a lot of men. Many men look for ways to increase their penile size, ranging from oral medication, stretch apparatus, injections, and surgery, to traditional methods. *Smilax rotundifolia*, also known as *daun bungkus* or common greenbrier in the western hemisphere, is a local herb most found in the West Papua region of Indonesia. This plant has been used for a variety of medicinal purposes but has recently gained fame as a novel penis enlargement. However, these claims have not been scientifically proven. A 25-year-old male presented with an ill-defined erythematous patch with multiple geographic erosion and diffuse edema after using a local herb called *S. rotundifolia*, also known as *daun bungkus* or common greenbrier. The patient was treated with an oral antihistamine, topical corticosteroids, and antibiotics. The condition improved within 2 weeks. *S. rotundifolia*, also known as *daun bungkus*, is a local herb from Papua, Indonesia, believed to have penis-enlargement properties. Research is still scarce on the active ingredients in this plant, and one study suggests that it contains triterpenoid saponin and saponin steroid. The active ingredients in this plant may be responsible for the development of contact dermatitis. Due to the popularity of this plant as an alternative penis augmentation product, it is important for practitioners to be aware of this product and its adverse effects. Further studies are also needed to examine the active ingredients in this plant.

Keywords: Allergic Contact Dermatitis, Irritant Contact Dermatitis, Phytocontact Dermatitis, Common Greenbrier

INTRODUCTION

Bigger male genitalia were and are a symbol of power and virility in many cultures. The demand for penile augmentation continues to increase as mass media promotes a standard of normalcy and advertisements equal size and virility as a symbol of masculinity.^[1,2] Current main augmentation demands are girth enhancement and lengthening. However, the absence of an established procedure and proper technique leads to multiple iatrogenic penile deformities and poor glans tumescence during a normal erection. Due to relatively restrictive costs and the perceived safer adverse effects profile of topical and so-called natural products, demands keep increasing for alternative solutions. A traditional herbal medication called “*daun bungkus*” or *Smilax rotundifolia* or common greenbrier is commonly found and cultivated in West Papua and is believed to have healing properties and penis enlargement capabilities. Here, we report a rare case of a 25-year-old man complaining of a painful burning sensation on his penis due to the application of *S. rotundifolia*.

CASE REPORT

PATIENT AND OBSERVATION

A 25-year-old man presented with a swollen penis and complained of a painful burning and itching sensation in the past week. On physical examination, we observed an ill-defined erythematous patch and multiple geographical-shaped erosion on his penis with diffuse edema on his glans penis [Figures 1 and 2]. Inguinal and scrotal areas were unaffected. Before this visit, the patient had been searching for herbal methods for penile enlargement. The Patient chose the herbal plant *daun bungkus* or *S. rotundifolia*, grind and mixed with coconut oil, and applied it on his penis twice, each for 12 h and 1 h apart between each application. After the second application, the burning sensation became too painful for him, which led the patient to use burn cream containing silver sulfadiazine to no avail. The suggested method was to leave it on for 10–15 min and repeat it every couple of days, but the patient was impatient and thought it would have a faster effect by keeping it longer.

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Figure 1: Diffuse Irritant Phytocontact Dermatitis with multiple erosion and edema (anterior view)



Figure 2: Diffuse Irritant Phytocontact Dermatitis with multiple erosion and edema (posterior view).

The patient was diagnosed with irritant contact dermatitis from history taking and thorough physical examinations. The patient refused biopsy. The patient was initially treated with oral loratadine 10 mg once daily, twice-daily application of desoximetasone 0.25% cream, thrice-daily saline dressing, and discontinuing the topical herbal medication.

Follow-up after 3 days of therapy showed epidermolysis and an even bigger erosion, gradual improvement of erythema, and decreased edema. The patient was advised to continue the topical medications. Burning pain sensation and pruritus decreased significantly. We switched desoximetasone to fluocinolone with neomycin topical creams to prevent secondary infection that might impair wound healing.

Seven days after the first visit, most of the erythematous patch had subsided, and erosions mainly had healed, leaving

post-inflammatory hypopigmentation. Diffuse edema had also markedly improved.

Fourteen days after the first visit, the patient reported no more pain, pruritus, or erythema. Some edema still persisted but markedly improved compared to the last visit.

DISCUSSION

S. rotundifolia, or *daun bungkus*, as it is more commonly known in Papua, has recently gained considerable fame in the past couple of years as an alternative penis enlargement method.^[3] This plant has been known and used in Papua as a traditional or herbal medication and is believed to be able to treat syphilis and is also used for cooking.

This plant gained fame for its penile augmentation capabilities and is thought to be a cheaper alternative to other injectable or surgical methods. *Daun bungkus* preparation includes mashing the plant, mixing it with coconut oil, and applying it every other day for 10–15 min until the desired result is achieved. Research is still sparse regarding the active ingredients contained in this plant, with one study using spectrophotometry suggested that *S. rotundifolia* contains triterpenoid saponin and saponin steroid as its active ingredients.^[3,4]

Saponins are secondary metabolite synthesized from plants and are glycosylated compounds composed of two main parts: A water-soluble chain and liposoluble structure. Their name comes from the word “sapo” or soap due to their surfactant properties which allow them to form stable foam when shaken.^[5] It was shown that saponins function to protect plants from pathogens by having insecticidal properties, and saponins may damage cell membranes by creating pores and vesiculation, thus affecting cell wall permeability.^[6,7] The enlargement is hypothesized to result from local edema that needs to be elucidated further.

In this patient, the plant was applied twice for 12 h, longer than the suggested time of 10–15 min. This prolonged application of the plant likely caused irritant contact dermatitis to the active ingredients, causing severe pruritus, epidermolysis, and inflammation [Figures 1 and 2]. Irritant contact dermatitis is a localized inflammatory response to a wide range of chemical and physical agents; this effect results from disruption of the epidermal barrier, cytotoxic effect, and cytokine release from keratinocytes and is not immune-mediated. Thus, we decided to give the patient a saline compress, an oral antihistamine to help with the pruritus, and topical corticosteroids with antibiotics to reduce the inflammation and prevent secondary infection.

Herbal penile-lengthening medications are easily available on the internet. The theory behind many of these medications is that these herbal blends will increase blood flow to the penis and enhance its size.^[4] However, there is no evidence that supports these claims. So far, the only evidence-based medicine to support topical medication has only been studied in microphallic hypospadias children using topical testosterone.^[8]

CONCLUSION

Penis enlargement using so-called herbal medication may not always be safe. This plant, common in West Papua region of Indonesia, is widely advertised as a novel, instant penis augmentation product. However, this plant is not as safe as it is perceived to be, as we report a case of diffuse irritant dermatitis due to the application of the plant. We are looking to do further studies to determine the active ingredients causing the enlargement effect, determine efficacy, and assess its safety profile.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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