

# Painless Purple Streaks on the Arms and Chest

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A 10-year-old boy presented with painless purple streaks on the arms and chest of 2 months' duration. The rash recurred several times per month and cleared without treatment in 3 to 5 days. There was no history of trauma or medication exposure, and he was growing and developing normally.

## WHAT'S THE DIAGNOSIS?

- a. child maltreatment syndrome
- b. factitial purpura
- c. Henoch-Schönlein purpura
- d. idiopathic thrombocytopenic purpura
- e. meningococemia

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The authors report no conflict of interest.

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## THE DIAGNOSIS: Factitial Purpura

Factitial dermatologic disorders are characterized by skin findings triggered by deliberate manipulation of the skin with objects to create lesions and feign signs of a dermatologic condition to seek emotional and psychological benefit.<sup>1</sup> The etiology of the lesions is unclear, and the patient's history of the injury is hollow.<sup>2</sup> Most often, there is sudden onset of the lesions without any warning or symptoms. When giving the history, the patient may appear unemotional, does not report pain, and denies self-infliction.<sup>1</sup>

In factitial purpura, the purple patches are clearly demarcated from uninvolved skin and have an unusual angular or geometric shape. The pattern typically takes the shape of the object used to create the purpura and lacks the features of recognizable dermatoses.<sup>2</sup> In our patient and those with similar linear purpuric streaks, we use the term *penny purpura* to indicate that the lesions resulted from rubbing with a penny or other blunt object, similar to coining. The lesions occur in areas that are easily accessible and visible such as the arms, chest, or chin. It is suggested that the child unconsciously wants the lesions to be seen. Histologic findings in factitial purpura include disruption of collagen fiber bundles and extravasated red blood cells in the dermis.<sup>3</sup> Unfortunately, evolving lesions may give nonspecific histologic findings; when the clinical lesions are typical, skin biopsy usually is unnecessary and may be misleading. Laboratory test results such as complete blood cell count, prothrombin time, and partial thromboplastin time usually are within reference range, as in our patient.

When evaluating these patients, confrontation is not recommended. More than two-thirds of affected patients have a history of trauma such as sexual/physical abuse or neglect, and the lesions typically arise during times of stress.<sup>1,3</sup> Thus, treatment includes nonaccusatory measures and referral for psychological evaluation. The purpura will rapidly heal when covered with an occlusive dressing.<sup>2</sup>

The differential diagnosis for penny purpura includes lesions that evolve from cupping and coining. Cupping is a type of complementary and alternative medicine that acts by correcting imbalances in the internal biofield and restoring the flow of qi, which determines

the state of one's health and life span.<sup>4</sup> Cupping is performed by placing a glass cup over a painful body part. A partial vacuum is created by flaming, mechanical withdrawal, or thermal cooling of the entrapped air under the cup. When the flame exhausts the supply of oxygen, the skin is sucked into the mouth of the glass, and the skin is bruised painlessly.<sup>4</sup>

The differential also includes child maltreatment syndrome and other disorders that would potentiate bruising. Intravascular etiologies include idiopathic thrombocytopenic purpura, leukemia, coagulation disorders, and other causes of thrombocytopenia or platelet dysfunction.<sup>3</sup> Extravascular etiologies include hereditary collagen vascular disease (eg, Ehlers-Danlos syndrome), malnutrition, and other disorders associated with a decrease in collagen and other tissues that support cutaneous vessels. Vascular etiologies include infectious (eg, Rocky Mountain spotted fever, meningococemia) and noninfectious vasculitis (eg, Henoch-Schönlein purpura), leaky capillary syndrome, drug reactions, and other disorders associated with a loss of vascular integrity.<sup>3</sup>

It is important to be able to differentiate self-inflicted lesions in a person who repeatedly acts as if he/she has a physical disorder from those that are created during the practices of cupping or any other cultural healing practice. Vascular disorders, malnutrition, and child abuse also should be excluded.<sup>3</sup>

For our patient with factitial purpura, we gently encouraged the family to work with the child's pediatrician and a pediatric psychologist to deal with stress related to the recurrent rash and asked them to think of the rash as a result of an external cause; however, we were careful not to blame anyone for the rash.

### REFERENCES

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