Emesis-induced facial purpura as a mask phenomenon

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Accepted 4 February 2021

DESCRIPTION

A healthy 20-year-old man presented with acute facial purpuric lesions after forceful vomiting (figure 1). He vomited due to overeating, and the patient noticed his facial purpura soon after the emesis when looking at his face in the bathroom mirror. The patient denied experiencing pruritus or pain of the lesions. He had no known allergies and was not on any medications. Physical examination revealed non-palpable purpura on his face; however, it was not present on his arms, legs and trunk. Other physical examinations revealed unremarkable findings. Laboratory investigations and the workup for vasculitis revealed within normal levels of serum creatinine (0.78 mg/dL (reference range: 0.50–1.30 mg/dL)), white blood cell count (5200/mm³ (reference range: 3300–8600/mm³)), platelet count (251 000/mm³ (reference range: 150 000–350 000/mm³)), IgA (116 mg/dL (reference range: 110–410 mg/dL)), complement component 3 (78 mg/dL (reference range: 65–135 mg/dL)) and complement component 4 (17 mg/dL (reference range: 13–35 mg/dL)) with negative antinuclear antibody test. Neither proteinuria nor haematuria was detected in the urinalysis.

We diagnosed emesis-induced petechial rash as a mask phenomenon, and the purpura faded spontaneously after approximately 48 hours without treatment. Skin biopsy was not performed.

The mask phenomenon is known as an unusual purpura of the relatively loose tissues of the face and neck occurring after severe straining that raises intravascular pressure, such as vomiting, prolonged coughing, crying, infant delivery or the Valsalva manoeuvre.^{1,2} The purpura typically fades within a few days without treatment; thus, invasive interventions are not required.³ The differential diagnoses of facial purpura include IgA vasculitis, systemic lupus erythematosus, senile purpura, actinic purpura, thrombocytopenic purpura, acute haemorrhagic oedema, purpura fulminans, amyloidosis, drug eruption and trauma.^{2,4,5} Physicians should keep in mind the possibility of a mask phenomenon when patients have facial purpura after straining.

Figure 1 A physical examination showing non-palpable facial purpuric lesions after the emesis.

Learning points

- ▶ Mask phenomenon is a purpura of the loose tissues of the face and neck occurring after severe straining.
- ▶ The purpura typically fades within a few days without treatment.
- ▶ Invasive interventions are not required for the mask phenomenon.

Contributors RO contributed to patient management, conception and design of case report and drafting the article. HT and KF contributed to analysis and interpretation of data and revising the article. All authors gave final approval of the article and have agreed to be accountable for all aspects of the work.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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To cite: Ono R, Takahashi H, Fukushima K. *BMJ Case Rep* 2021;14:e241456. doi:10.1136/bcr-2020-241456

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