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A case with Gianotti-Crosti syndrome with a history of atopic dermatitis

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Abstract

Gianotti-Crosti syndrome (GCS) is characterized by the sudden onset of a papular or papulovesicular rash with a symmetrical distribution. This rash mainly appears on the extensor surfaces of the limbs, buttocks, and face. GCS is most frequently observed in children aged 1 to 6 years. In this case, we present the diagnosis of GCS in an 8-month-old male patient who also has a history of atopic dermatitis. Symmetrical, multiple, monomorphic, raised, red, and itchy lesions were identified on the patient's face, trunk, arms, and legs. The presence of atopic dermatitis was notably more common in individuals with GCS, suggesting a significant association with a family history of atopy. GCS is a syndrome that demands a high degree of clinical suspicion as it can be mistaken for other childhood exanthematous diseases.

Keywords: Gianotti-Crosti syndrome, atopic dermatitis

Introduction

Gianotti-Crosti syndrome (GCS), also known as papular acrodermatitis, childhood papular acrodermatitis, or infantile papular acrodermatitis, is characterized by the sudden onset of a papular or papulovesicular rash with a symmetrical distribution. This rash primarily appears on the extensor surfaces of the extremities, buttocks, and face [1]. GCS is most commonly observed in children aged 1 to 6 years [1,2].

The two most common pathogens associated with GCS are Epstein-Barr virus (EBV) and hepatitis B, although many different viral infections have been reported in association with this syndrome, including cytomegalovirus (CMV), HIV, hepatitis A, hepatitis C, parvovirus B19, parainfluenza virus types 1 and 2, coxsackieviruses A16, B4, and B15, rotavirus, echovirus, respiratory syncytial virus, rubella virus, adenovirus, enterovirus, herpes virus 6, molluscum contagiosum virus, paravaccinia virus, and mumps virus [1,2].

In this report, we present the case of an 8-month-old male patient with a history of atopic dermatitis who has been diagnosed with GCS.

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Informed Consent
The authors stated that the written consent was obtained from the parents of the patient presented with images in the study.

Conflict of Interest
No conflict of interest was declared by the authors.

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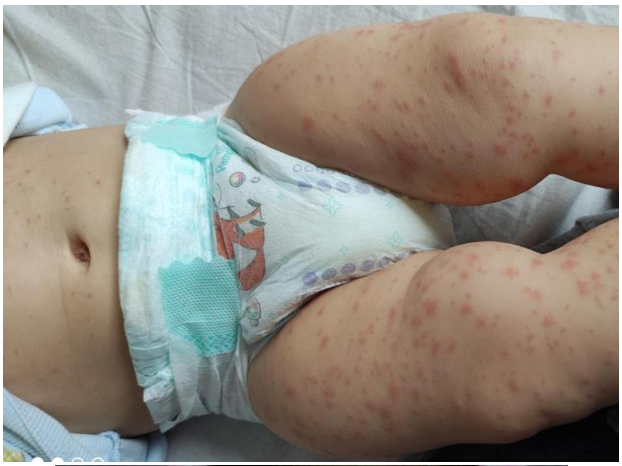
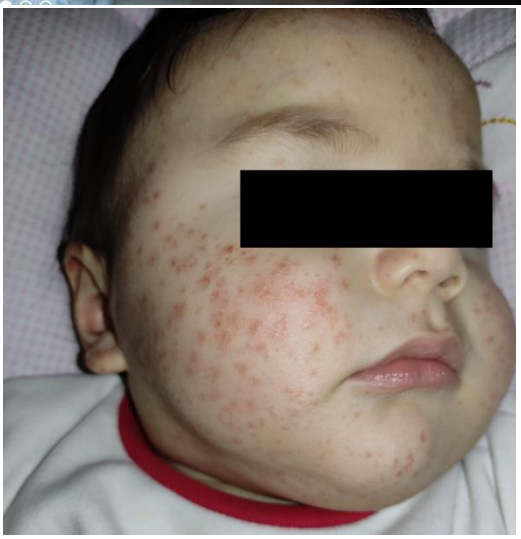
Case presentation

An 8-month-old male patient presented with a papular eruption that rapidly worsened over the course of a few days. The papules initially appeared on the legs and subsequently spread to the trunk, arms, and face. The patient had experienced flu-like symptoms approximately one week prior to the eruption. There was no history of fever, vomiting, diarrhea, recent vaccination, or a family history of COVID-19. Additionally, the patient had a history of using hydrocortisone acetate due to a prior diagnosis of atopic dermatitis, although there were no recent skin lesions related to this condition.

Upon physical examination, we observed symmetrical, multiple, monomorphic, raised, erythematous, and pruritic lesions on the face, trunk, arms, and legs (Figure 1). Notably, there were no lesions on the scalp, mucous membranes, palms, or soles. The individual lesions had diameters ranging from 1 to 5 mm. Laboratory tests, including a complete blood count and respiratory viral panel, returned normal results. Serology for hepatitis A, B, C, herpes 1-2, cytomegalovirus (CMV), and EBV all yielded negative results.

Figure 1: Multiple monomorphic, fat-covered, erythematous pruritic papules lesions.





The patient had previously been evaluated at another medical center, where a diagnosis of atopic dermatitis had been established, and moisturizing cream had been recommended. Following subsequent evaluations by various specialties, including pediatrics and dermatology, the diagnosis of GCS was considered the most likely based on clinical findings and laboratory examinations. As a measure for controlling pruritus, an antihistamine was prescribed. The rash spontaneously resolved within a 15-day period.

The patient's mother provided written consent for the publication of this report and the use of accompanying pictures.

Discussion

GCS, also known as papular acrodermatitis, is a self-limiting condition primarily affecting children under the age of 6, although it is less common in adolescents and adults. It is characterized by a viral exanthem, typically manifesting as flat-topped, symmetrically distributed papular lesions that predominantly affect the extremities, gluteal region, and extensor surfaces. While GCS is often associated with viral infections, it can also be linked to bacterial infections, vaccination, or occur idiopathically [1,3].

Given the benign and self-limiting nature of GCS, the primary focus should be on symptomatic and supportive measures. For pruritus management, some sources recommend the use of topical lotions (such as calamine, pramoxine, menthol, camphor, and polidocanol) as well as oral antihistamines. In severe cases, topical or systemic corticosteroids may be indicated [3].

In the differential diagnosis of GCS, other conditions to consider include atopic dermatitis, hand-foot-and-mouth disease, papular urticaria, fifth disease, erythema multiforme, scabies, and drug eruptions [1]. Notably, atopic dermatitis, a common chronic inflammatory skin disease characterized by itching, dry skin, eczematous lesions, and lichenification, should be considered in the differential diagnosis [4]. It is worth mentioning that most children with GCS have an excellent prognosis, but full recovery may take some time until the lesions completely resolve, often causing concern for both the patient and their family [3].

As with other differential diagnoses, differences should be considered when distinguishing GCS from atopic dermatitis. Notably, the presence of atopic dermatitis was found to be significantly higher in individuals with GCS, suggesting a strong association with a family history of atopy. Research has indicated that atopy plays a significant role in predisposing children to clinical papular eruptions characteristic of GCS when exposed to various microbial agents [5]. The fact that our case had a history of atopy aligns with these findings.

Conclusion

Diagnosing GCS requires a high degree of clinical suspicion, as it can be easily confused with other childhood exanthematous diseases. This condition may be underdiagnosed and should, therefore, be considered in the differential diagnosis of patients presenting with atypical exanthema.

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