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CASE REPORT: PAPULAR ACRODERMATOSIS OF CHILD, OR GIANOTTI-CROSTI SYNDROME

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Abstract

Gianotti-Crosti syndrome is a benign skin disorder, predominantly occurring in children, characterized by a symmetrical papular or papulovesicular rash localized on the face, extremities, and buttocks caused by a viral infection or hypersensitivity. We report a case of 18-month-old male child presenting with GCS with typical manifestations of this syndrome. The report offers a detailed chronology of the disease course, including the onset, evolution, and resolution of symptoms. We describe in detail the course of the disease, diagnostic signs and approach to patient management, emphasizing the importance of differential diagnosis in pediatric practice and highlighting the self-limiting nature of the syndrome.

Keywords: *Gianotti-Crosti syndrome, papular acrodermatitis, childhood exanthems, viral skin eruptions, Epstein-Barr virus.*

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Резюме

КЛИНИЧЕСКИЙ СЛУЧАЙ: ПАПУЛЕЗНЫЙ АКРОДЕРМАТИТ ДЕТЕЙ, ИЛИ СИНДРОМ ДЖАНОТТИ-КРОСТИ

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Синдром Джанотти-Крости — доброкачественное заболевание кожи, встречающееся преимущественно у детей, характеризующееся симметричной папулезной или папуловезикулярной сыпью, локализующейся на лице, конечностях и ягодицах, вызванной вирусной инфекцией или гиперчувствительностью. В статье описан случай 18-месячного мальчика с Синдромом Джанотти – Крости и типичными проявлениями этого синдрома. В работе представлена подробная хронология течения заболевания, включая начало, развитие и разрешение симптомов. Мы подробно описываем течение заболевания, диагностические признаки и подход к ведению пациента, подчеркивая важность дифференциальной диагностики в педиатрической практике и подчеркивая самоограничивающийся характер синдрома

Ключевые слова: *Синдром Джанотти-Крости, папулёзный акродерматит, экзантема у детей, вирусные кожные высыпания, вирус Эпштейна-Барр.*

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Түйіндеме

КЛИНИКАЛЫҚ ЖАҒДАЙ: БАЛАЛАРДЫҢ ПАПУЛЯРЛЫ АКРОДЕРМАТИТІ НЕМЕСЕ ДЖАНОТТИ-КРОСТИ СИНДРОМЫ

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Джанотти–Крости синдромы - негізінен балаларда кездесетін, симметриялы папулалық немесе папуловезикулярлы бөртпелермен сипатталатын терінің қатерсіз зақымдануы. Бөртпелер әдетте аяқ-қолдарда, бетте және жамбас аймағында орналасады. Синдромның дамуында вирустық инфекциялар немесе жоғары сезімталдық реакциялары басты этиологиялық факторлар ретінде қарастырылады. Мақалада Джанотти-Крости синдромы бар 18 айлық баланың жағдайы және осы синдромның типтік көріністері сипатталған. Жұмыста аурудың басталуын, дамуын және симптомдардың шешілуін қоса алғанда, аурудың ағымының егжей-тегжейлі хронологиясы берілген. Аурудың клиникалық ағымы, диагностикалық ерекшеліктері және емдеу мен бақылау тәсілдері егжей-тегжейлі баяндалып, педиатриялық тәжірибеде дифференциалды диагностиканың маңыздылығы мен синдромның өздігінен шектелетін табиғаты атап өтіледі.

Түйін сөздер: *Джанотти-Крости синдромы, папулалық акродерматит, балалардағы бөртпелер, вирустық тері бөртпелері, Эпштейн-Барр вирусы.*

Дәйексөз үшін:*Месова А.М., Тулеубаева А.А., Абдрахманова С.Т., Алтыбаева С.М., Кадирова А.К., Перфильева О.О., Аширов Б.А.* Клиникалық жағдай: балалардың папулярлы акродерматиті немесе Джанотти-Крости синдромы // Ғылым және Денсаулық сақтау. 2025. Vol.27 (4), Б. 252-256. *doi 10.34689/SH.2025.27.4.030*

Introduction

Gianotti-Crosti Syndrome (GCS), also known as infantile papular acrodermatitis, is a rare self-resolving exanthem. The peak incidence occurs in children between one to six years and the frequency of the disease is not related to the sex of the child. The main clinical manifestation is a symmetrical monomorphic rash affecting mainly the extremities, it rarely spreads to the face and torso. The appearance of other symptoms is individual and in some cases this syndrome may be accompanied by diarrhea, fever, hepatomegaly and generalized lymphadenopathy. A characteristic peculiarity is a sudden monochrome and monomorphic rash, represented by pink, pale red, less often flesh-colored or purple papules. Itching is quite common. On average, GCS passes on its own within 2-8 weeks. But sometimes there were cases when the rash lasted from 5 days to 12 months. The rash disappears without a trace, without scarring, leaving behind pigmentation, which disappears quite quickly. [1, 2, 3]

The etiology of this syndrome is not fully understood, but it is often associated with Epstein-Barr virus, hepatitis B, cytomegalovirus and enterovirus infections. Sometimes GCS manifests itself as a post-vaccination phenomenon. In addition, there are no statistics on GCS, as it is often not diagnosed or misdiagnosed. [1, 2, 3, 4]

Clinical case

An 18-month-old male child was admitted to the emergency department with a complaints of fever, skin lesions and tonic convulsions. The rush was symmetrical, well-demarcated and localized on the upper and lower extremities.

On clinical examination, the rash consisted of pink, edematous, hemispherical papules 1–3 mm in diameter. The lesions were symmetrical with distinct edges, bluish discoloration and purulent content on an erythematous background. Scaling was noticed on the surface of the rash and post-inflammatory pigmentation on the face (Figure 1-6).

The patient's general condition was severe due to symptoms of intoxication, oropharyngeal inflammation, widespread rash and hyperthermia. Submandibular lymphadenopathy was present with tender notes on palpation. Examination of the oropharynx detected diffuse erythema (“red throat”), tonsillar hypertrophy and purulent exudate that removable with a spatula without bleeding.

Laboratory tests of the blood panel revealed leukocytosis (19.02 × 10^9/L), thrombocytosis (354.0 × 10^9/L), hypercreatinemia (18.0 mmol/L) and increased C-reactive protein (21 g/L). Urinalysis showed ketonuria. Coagulation testing showed prolonged thrombin time (16.9 sec) and an increased INR of 1.3. CLIA showed a procalcitonin level of 0.270 ng/ml. Bacteriological cultures from the pharynx and wound secretions grew Streptococcus pyogenes, group A. Following a dermatovenerology consultation a clinical diagnosis of Gianotti-Crosti syndrome was established.

Discussion

GCS is considered to be a result of delayed-type hypersensitivity (type IV) mediated by T lymphocytes. After

primary infection, hematogenous dissemination of the virus occurs, followed by deposition of antigens in the skin. This leads to activation of T-cells and the development of an inflammatory reaction in the epidermis and dermis. [2]

The child's skin manifestations were typical of Gianotti-Crosti syndrome, but were characterized by some morphological variability depending on the anatomical localization. The rashes were represented mainly by symmetrical erythematous papules localized on the face, buttocks, and extensor surfaces of the extremities. The rash predominantly consisted of dense, flat or slightly raised papules measuring 1–3 mm in diameter, pinkish, with well-defined borders and a smooth surface on the face and upper extremities. Individual papulovesicular elements with serous contents were detected on the lower extremities and buttock. The skin background between the rashes was intact. Itching and burning were absent. [2, 3]

Infectious mononucleosis, atopic dermatitis, papular urticaria, chickenpox, Kawasaki syndrome, and vasculitis were included in the differential diagnosis. However, the pattern of the rash, clinical, and laboratory data excluded these conditions [2,3]. Multiple viral infections have been linked to the occurrence of Gianotti-Crosti Syndrome in reported cases [4-13].

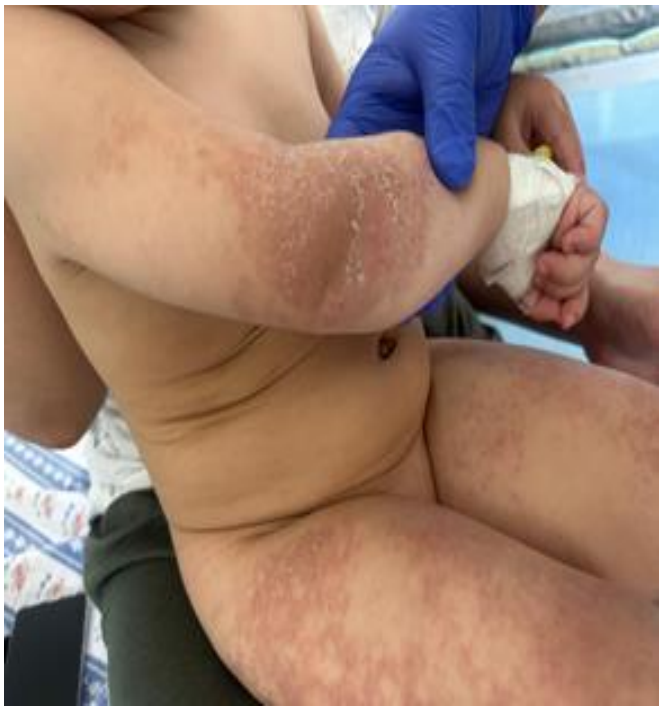

Fig.1. Gianotti-Crosti Syndrome

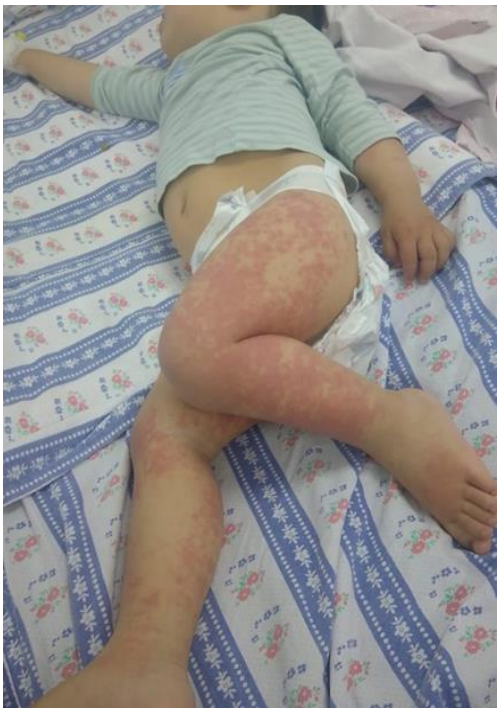

Fig.2. Gianotti-Crosti Syndrome

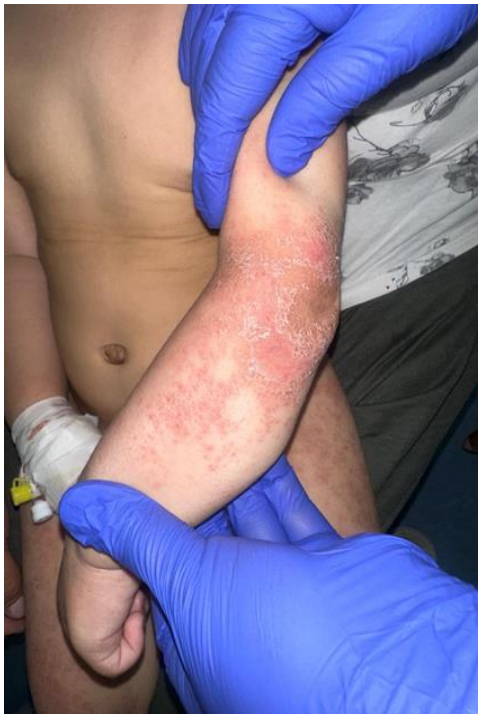

Fig.3. Gianotti-Crosti Syndrome

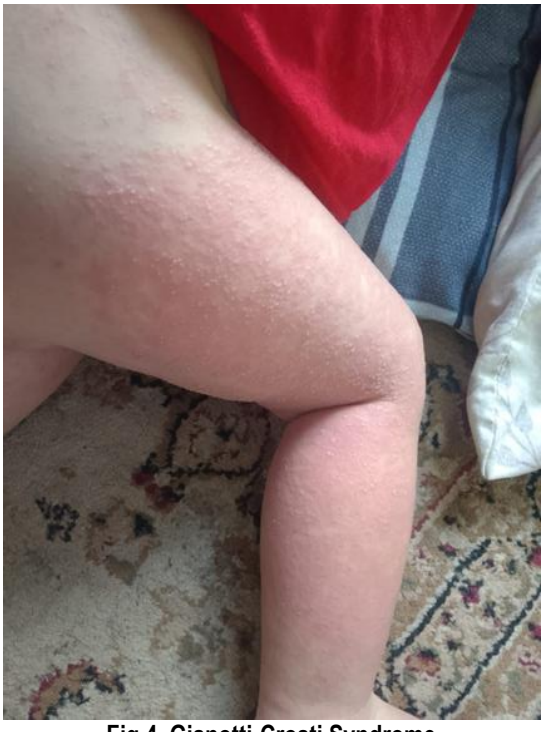

Fig.4. Gianotti-Crosti Syndrome

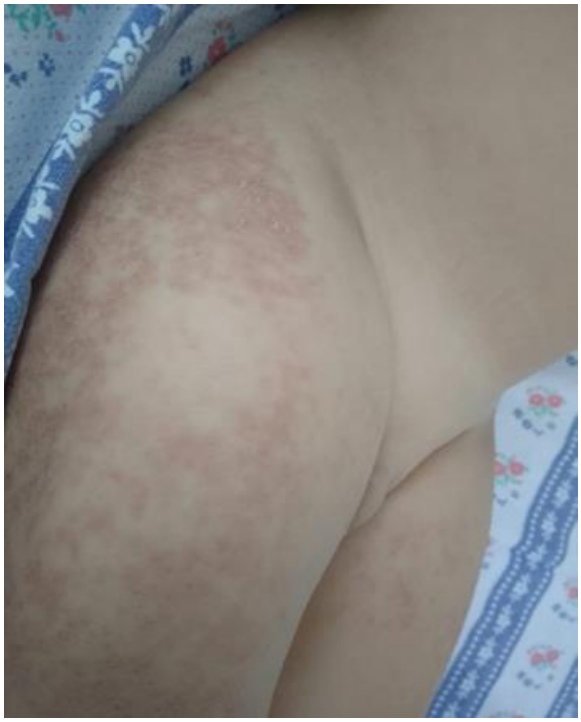

Fig.5. Gianotti-Crosti Syndrome

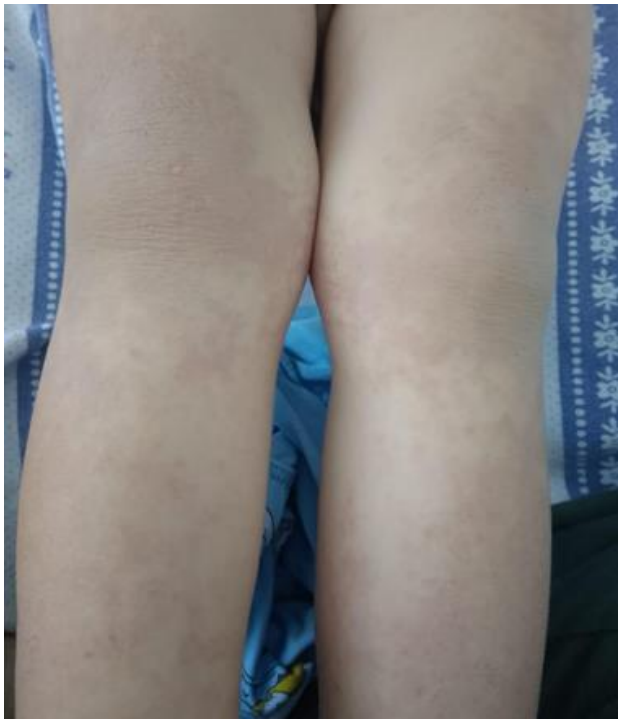

Fig.6. Gianotti-Crosti Syndrome

Table 1.

Characteristic of GCS cases reported in literature.

	Authors	Age	Country	Year	Virus associated
1	Lin et al.	2 years	Taiwan	2015	HBV
2	Leung et al.	18 months	USA	2004	EBV
3	Caputo et al.	3 years	Italy	2007	CMV
4	Oranje et al.	4 years	Netherlands	2010	Coxsackie B
5	Neri et al.	6 years	Italy	2016	HHV-6
6	Watanabe et al.	1 year	Japan	2002	Parvovirus B19
7	Wu et al.	2.5 years	China	2018	EBV
8	Chen et al.	3 years	Taiwan	2020	Hepatitis A
9	Yoshikawa et al.	5 years	Japan	2013	HHV-7
10	Ghosh et al.	2 years	India	2021	COVID-19

The diagnosis of GCS is clinical and does not require biopsy or specific treatment. However, our patient had a bacterial oropharyngeal infection with group A streptococcus (GAS), which was detected by throat swab culture. Antibiotic therapy, NSAIDs for temperature control, antihistamines, and tissue regeneration ointment were prescribed and the condition resolved without complications. Although GCS is a benign, self-limited disease, it is important to recognize it to avoid unnecessary diagnostic and therapeutic interventions.

Conclusion

We reported a clinical case of GCS in an 18-month-old child. Healthcare providers should recognize this uncommon, transient skin condition linked to viral pathogens.

Conflict of Interest. *The authors declare that they have no conflict of interest.*

Contribution of authors. *All authors were equally involved in the writing of this article.*

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