



Case Report

A case report on A 12 year male child with guttate psoriasis

Goparaju Kavya¹, Guniseti Tejaswini¹, Tejaswi Chillara^{1*}

¹Dept. of Medicine, Ujjwala Clinic, Bhuvanagiri, Telangana, India



ARTICLE INFO

Article history:

Received 13-12-2023

Accepted 17-01-2024

Available online 09-03-2024

Keywords:

Guttate psoriasis

Strep throat

Pharyngitis

Topical steroids

Immunosuppressants

ABSTRACT

Psoriasis is an inflammatory skin condition that causes discoloration and irritation whereas Guttate psoriasis often develops suddenly and may start after an infection such as strep throat. In guttate psoriasis small, droplet shaped patches appears on arms, legs, scalp, torso. Most commonly seen in children and adolescents than adults. It was classically triggered by streptococcal infection (pharyngitis or perianal) and is not contagious (it cannot be transferred to others through skin-to-skin contact). Usually guttate psoriasis subsides within few weeks, after that there are several possible outcomes such as you may never develop it again, it may recur intermittently or may develop into chronic plaque psoriasis. It can be mild, moderate or severe. We came across a case of 12 year old male child presenting with complaints of annular plaques with itching since 5 days all over the body. Based on subjective, objective and laboratory investigations the child was diagnosed with Guttate psoriasis. And child was treated with topical steroids, immunosuppressants, antibiotic and anti ketogenic agents respectively and within 4 weeks the child was recovered.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](#), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Case Presentation

History of present illness

A 12-year-old male child came to dermatology ward with chief complaints of annular plaques (round shaped red patches) with itching since 5 days all over the body and hair loss with annular plaques.

1. Past medical history

- (a) No significant past medical history.

2. Family history

- (a) No significant family history.

3. Birth history

- (a) Birth weight – 2.5 kgs
(b) 2nd child / LSCS/ No NICU admission

- (c) Immunization done as per schedule

4. Social history

- (a) He is a school student from class 6
(b) Diet - Mixed diet
(c) Sleep – adequate
(d) Appetite – normal
(e) Bowel and bladder – regular.

5. Allergies

- (a) No significant allergies were experienced either with medicines or food and environmental changes.

2. Physical Examination

1. *Vitals*: Temperature – Afebrile, Blood pressure – 100/80 mmhg
2. Heart rate – 90/min, Respiratory rate – 24/min, CVS – S1S2+, P/A – soft

* Corresponding author.

E-mail address: tejaswi.chillara23@gmail.com (T. Chillara).

3. General Examination

Pickle – Negative.

4. Initial Evaluation

Laboratory studies

Initial workup from the Dermatology department revealed that his Hb-12.0g/dl, RBC-4.6M/Cumm, HCT-36.4%, MCV-78.9fl, platelet-3,68,000, ESR-05mm 1st hour (NR-0-10mm) which were found to be normal. whereas, Antistreptolysin O TITRE test revealed 320IU/ML(NR-UP TO 200IU/ML) and CRP was found to be 68 mg/dl (NR -1-10 mg/dl).

5. Differential Diagnosis

1. Tinea corporis
2. Secondary syphilis
3. Nummular eczema
4. Pityriasis rosea

5.1. Confirmatory evaluation

His physical examination revealed appearance of round shaped red patches on skin all over the body, itching - positive and ASO Titre test has elevated range that is 320IU/ML which says presence of bacterial infection caused by Group A Streptococcus which commonly causes strep throat and related illness.

5.2. Diagnosis

Based on physical examination and laboratory findings the child was diagnosed with Guttate psoriasis.

5.3. Treatment

1. Dewmoiz soap
2. Glymed lotion for external use morning
3. Diprobate plus cream for rashes during night
4. Imograp ointment for external use
5. Aziwok syrup 200mg 5ml twice a day
6. Tab Xyzal 5mg $\frac{1}{2}$ tab twice a day
7. Ketocool shampoo for external use weekly twice
8. Hhsone lotion for external use during night

6. Discussion

Psoriasis is an inflammatory skin condition that causes discoloration and irritation, it comes in different forms. on light and fair skin tones appears as raised, red or pink patches of skin that are often paired with silvery skin. On medium skin tones it may look salmon-coloured with silvery-white scales. On darker skin tones, the patches may appear as violet or dark brown.¹

Guttate psoriasis is a psoriasis that shows up on your skin as red, scaly, small teardrop-shaped spots. you usually get it

as a child or young adult.²

Guttate psoriasis typically develops 1–2 weeks after a streptococcal infection of the upper respiratory tract, particularly tonsillitis, or other sites such as perianal streptococcal dermatitis. Beta-haemolytic streptococci can directly stimulate skin-homing T-cell proliferation in the tonsils.³

It can be mild (few spots cover 3% of skin), moderate (lesions cover about 3%-10% of skin), severe (10% to entire body).²

In addition to strep throat, the following may trigger an attack

1. Bacteria or viral infections, including upper respiratory infections
2. Injury to skin, including cuts, burns, and insect bites
3. Stress, sunburn
4. Weakened immune system⁴

7. Etiology and Epidemiology

Recent upper respiratory infections or oropharyngeal or perianal streptococcal infections are risk factors for guttate psoriasis. Usually, infections start one to three weeks prior to the development of guttate lesions. Lesions associated with guttate psoriasis have also been reported after TNF-alpha therapy.

Slightly more than 2% of people worldwide suffer from psoriasis; in the US and Canada, that number might reach 4%. Psoriasis typically has a bimodal peak of onset. Ages 20 to 30 and 50 to 60 are potential peaks for the onset. Less than thirty percent of all instances of psoriasis are guttate. It affects people of both sexes equally and is more prevalent in kids and teenagers than in adults over thirty.

7.1. Pathophysiology

Streptococcal super antigens are thought to promote the skin's T cell proliferation in guttate psoriasis. It was discovered that the sequences of the human keratin 17 proteins and streptococcal M proteins are quite similar. Given that K17 and M6 peptides evoked CD8 (+) T cell IFN- γ responses in individuals carrying the main histocompatibility HLA-Cw6 allele, molecular mimicry may be involved in these cases.⁵

8. Clinical Features:³

Acute onset over days

1. Numerous small patches (<1 cm)
2. Pink, scaly, thin patches or plaques of psoriasis
3. Scale can be subtle in early lesions
4. Widespread lesions predominantly over the trunk and limbs
5. Lesions on the face, scalp, and ears tend to be faint and short-lived

8.1. Complications:⁶

1. Psychosocial effects and impaired quality of life.
2. Metabolic syndrome
3. Dyspigmentation in skin colour

8.2. Diagnosis

1. Skin biopsy.
2. Throat culture
3. Swabs for bacteriology.
4. Blood tests include Anti-streptolysin O titre (ASOT), anti-DNase B titre.

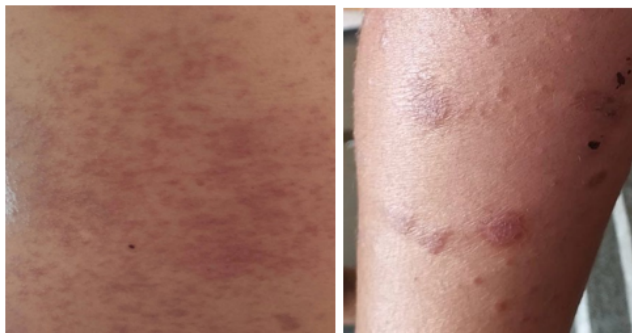


Figure 1:

8.3. Management

Usually, guttate psoriasis spontaneously resolves within a few weeks to months. In general, there is no firm consensus on specific treatment algorithms.

8.4. Topical corticosteroids

Antimicrobials such as Cephalexin (Keflex), Amoxicillin, Penicillin VK, Erythromycin, Rifampin, Azithromycin. Narrowband UVB Phototherapy.^{6–8} Emollients. Anti histamines like levocetirizine.

9. Conclusion

It's a rare skin disorder which is caused by bacterial infection in my case report the cause was poor skin hygiene the condition was treated with antibiotics and steroids and my patient recovered within 3 to 4 weeks.

10. Source of Funding

None.

11. Conflict of Interest

None.

References

1. 2023. Available from: <https://www.healthline.com/health/psoriasis-guttate>.
2. Saleh D, Tanner LS. Guttate Psoriasis. and others, editor; 2023. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK482498/>.
3. Guttate psoriasis- Dr Amy Stanway, Department of Dermatology, Waikato Hospital, Hamilton, New Zealand, 2004. Copy edited by Gus Mitchell. DermNet NZ Update October 2021.
4. Guttate psoriasis. Available from: <https://medlineplus.gov/ency/article/000822.htm>.
- 5.
6. Guttate psoriasis. Available from: <https://dermnetnz.org/topics/guttate-psoriasis>.
7. Saleh D, Tanner G. Guttate Psoriasis. and others, editor. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing;; 2024.
8. Psoriasis G, Saleh D, Tanner LS. Guttate psoriasis – Dr Oliver starr; 2023. Available from: <https://pubmed.ncbi.nlm.nih.gov/29494104/>.

Author biography

Goparaju Kavya, Student

Guniseti Tejaswini, Student

Tejaswi Chillara, Assistant Professor

Cite this article: Kavya G, Tejaswini G, Chillara T. A case report on A 12 year male child with guttate psoriasis. *Southeast Asian J Health Prof* 2024;7(1):25-27.