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CASE STUDY: BETNESOL INDUCED RED COLORED RASH ALL OVER BODY

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Abstract
32 years old patient presented with Fever and Red colored rash all over the body due to the over dosage of Inj. Betnesol. A rash was erythematous.Pruritic and maculopapular, while generalized pitting edema was noted in the face, legs and hands. A thorough examination ruled out systemic infection and suggested a drug induced hypersensitivity reaction, with possible angioedema The differential diagnosis included viral exanthem and autoimmune disorders. Investigations were conducted to assess the extent of reaction, including Blood test, Renal and Liver function tests and a potential skin biopsy. Management focused on discontinuing InBetnesol, symptomatic treatment with corticosteroid and close monitoring for progression.The patient's prognosis was favorable upon discontinuation of the drug with most symptoms resolving in a few weeks.Patient education included avoiding are exposure to Inj.Betnesol and scheduling follow-up appointments to me monitor symptoms resolution. This case highlights the importance of recognizing drug induced reactions particularly with commonly prescribed medication like Betnesol, and providing timely management to prevent complications.

Key Words: Betnesol, erythematous, Autoimmune disorders.

Introduction to Inj. Betnesol:
The Betnesol, also known as Betamethasone is a medication that belongs to the class of Corticosteroids. More specifically, it is a synthetic glucocorticoid, which is a type of Corticosteroids that is used to treat various inflammatory and autoimmune conditions. It binds to specific receptors in the body, which helps to reduces inflammation and swelling. It suppressed the immune system, which helps to reduce the severity of autoimmune reactions. Betamethasone stabilizes mast cells, which helps to prevent the release of histamine and other allergic mediators. Betamethasone reduces inflammation by decreasing the production of inflammatory mediators, such as prostaglandin and leukotrienes.

In Conclusion, Inj. Betnesol is an effective treatment to treat various Inflammatory conditions.Offering substantial benefits in managing symptoms and improving quality of life for many patients. However, awareness of potential side effects and careful patient monitoring remain essential for optimal therapeutic outcomes.

Patient Information
- **Age:** 32 years
- **Gender:** Not Specified
- **Presenting Complaints:**
  - Fever
  - Red colored rash all over the body

Medical History
- **Past Medical History:** Inj. Betnesol (The patient was on Rheumatoid Treatment)

Clinical Presentation
The patient, a 32-year-old individual, presented with complaints of generalized fever and red coloured rash all over the body. The symptoms are started after the patient began using Inj. Betnesol daily for Rheumatoid arthritis. Betnesol is a corticosteroid commonly prescribed to treat various inflammatory and autoimmune conditions.

The patient does not have a history of hypertension, diabetes mellitus or any other significant comorbid conditions

The swelling appears to be generalized, with visible edema in the face. The rash is noted all over the body.

The rash is described as erythematous and pruritic. There is a history of fever, joint pains, and other systematic symptoms.

Initial assessment

1. **General Examination:**

Vital signs are stable with no signs of systematic infection.

2. Blood Pressure, heart rate, and respiratory rate within normal limits.
3. No significant sign of infection or lymphadenopathy.
4. **Skin Examination:**
5. Erythematous rash with mild swelling over observed on the body.
6. Rash appears to be maculopapular, non – vesicular, and non – ulcerative.
7. Skin examination revealed no open lessons or signs of secondary infection.
8. **Edema:**
9. Generalized pitting edema noted in the face.

Differential Diagnosis

1. **Angioedema:** Swelling could be sign of angioedema, potentially drug induced, Betnesol has been associated with this condition, especially when it presents with swelling of the face, lips and extremities.
2. **Viral Exanthema:** Consideration of viral causes (Ex: Rubella, Measles) for the rash, although the lack of systematic symptoms such as fever makes this less likely.
3. **Autoimmune Disorder:** A less likely but important differential, especially if the patient develops additional symptoms like joint pain or skin changes, pointing to possible Systematic Lupus Erythematosus (SLE) or other auto immune conditions.

Investigations

1. **Blood Tests:**
    - **Complete Blood Count (CBC):** To check for signs of infection, anemia or eosinophilia.
    - **Renal Function Tests (Urea, Creatinine):** To assess kidney function, given the generalized edema.
    - **Liver Function Tests:** To rule out hepatic involvement, as drug-induced reactions could impact the liver.
    - **Electrolytes:** To assess for imbalances, especially due to swelling or potential dehydration.
2. **Skin Biopsy (If needed):** If the rash persists or worsen a biopsy may be performed to assess for drug induced dermatological conditions.

Management Plan

1. **Discontinue Betnesol:**
    - Given the temporal relationship between the use of Betnesol and the onset of symptoms, the most likely cause is a drug induced reaction.
    - Discontinuing the medication is first step in management.
2. **Symptomatic Treatment:**

Antihistamines (Ex: Cetirizine or Diphenhydramine): To control itching and Rash.

- **Corticosteroids (Topical or Systematic):**If symptoms persist or worsen, oral corticosteroids like prednisolone may be considered for severe reactions such as angioedema.
- **Diuretics**: If edema persists and is bothersome, loop diuretics like furosemide may be prescribed to reduce swelling

3. **Close Monitoring:**
    - Monitor the patient for any progression of symptoms or new developments.
    - Revaluate for any systematic involvement such as fever, joint pain, or sign of anaphylaxis.

Prognosis

The prognosis is generally favourable once the offending agent (Betnesol) is discontinued. Most drug induced rashes and angioedema resolve with a few days to weeks after stopping the medication. However, the patients should be advised to seek medical attention is symptoms worsen or if signs of anaphylaxis (Ex. Difficulty in breathing, severe swelling) develop.

Patient Education

- The patient should be educated about the possibility of an allergic reaction to medications.
- Advise the patient to avoid re-exposure to Betnesol in future unless medically indicated.
- Follow-up appointments should be scheduled to monitor the resolution of symptoms and nay potential recurrence.

Conclusion

The case underscores the importance of promptly identifying and managing drug induced hypersensitivity reactions, particularly in patients presenting with common symptomslike rash and edema after starting new medications. Betnesol, although generally well-tolerated, can cause allergic reactions, including angioedema and skin rashes, as seen in the patient. Early discontinuation of the suspected drug, coupled with symptomatic treatment, proved effective in resolving the symptoms. The favorable outcome emphasizes the need for vigilance in recognizing adverse drug reactions and educating the patients about the risk of re-exposure to certain medications and prevent future complications.

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