

Case studies in dermatology

Case study 1

18 YEAR OLD MAN WITH RASH ON THE WRIST WITH ITCHING

This case study aims to

- Help understand the various clinical presentations of contact dermatitis
- Discuss the diagnosis of contact dermatitis
- Discuss the treatment of contact dermatitis

Case

An 18-year-old male presented with pruritic dermatitis on his right wrist. He had noticed this over the last 2 weeks when he stated wearing his new watch gifted to him on his birthday. On examination, there were papules, vesicles and areas of lichenification on the right wrist.



Investigations- Patch testing to nickel was positive.

Diagnosis: Allergic contact dermatitis to nickel in the watch and watchband

1. What is contact dermatitis?

Contact dermatitis is an inflammation of the skin caused by direct contact irritant or allergen.

2. What are the types of contact dermatitis?

a. Irritant contact dermatitis (ICD)

- Inflammation of the skin typically manifested by erythema, mild edema, and scaling
- Onset of symptoms occurs within minutes to hours of exposure in simple acute ICD
- Healing process beginning promptly on withdrawal of exposure to the offending agent

b. Allergic contact dermatitis

- The inflammation of the skin manifested by varying degrees of erythema, edema, and vesiculation
- It is a delayed type of induced sensitivity (allergy) resulting from cutaneous contact with a specific allergen to which the patient has developed a specific sensitivity

- Dermatitis develops within a few days of exposure in areas that were exposed directly to the allergen

3. What are the allergens commonly associated with contact dermatitis?

Common allergens associated with contact dermatitis include:

- Poison ivy, poison oak
- Other plants
- Nickel or other metals
- Medications
 - Antibiotics, especially those applied to the surface of the skin (topical)
 - Topical anesthetics
 - Other medications
- Rubber or latex
- Cosmetics
- Fabrics and clothing
- Detergents
- Solvents
- Adhesives
- Fragrances, perfumes
- Other chemicals and substances

4. How is contact dermatitis diagnosed?

- The diagnosis is primarily based on the skin appearance and a history of exposure to an irritant or an allergen.
- Patch testing is the gold standard for contact allergen identification. Allergy testing with skin patches may isolate the suspected allergen that is causing the reaction.
- Patch testing is used for patients who have chronic, recurring contact dermatitis. It Small patches of potential allergens are applied to the skin. These patches are removed 48 hours later to see if a reaction has occurred. Approximately 2 days the skin is examined again later o evaluate for any delayed reaction.
- Other tests may be required to rule out other possible causes, including skin biopsy

5. How is contact dermatitis treated?

- a) Thorough washing with lots of water to remove any trace of the irritant that may remain on the skin.
- b) Avoidance of further exposure to known irritants or allergens
- c) Corticosteroid skin creams or ointments
- d) Tacrolimus ointment or pimecrolimus cream.

6. What are the complications of contact dermatitis?

Secondary bacterial skin infections of the skin may occur

Case contd.

Patient was treated with mometasone cream. The lesions cleared in a weeks. He was told to avoid his nickel watch and strap.