



Net Quiz in Dermatology

Quiz questions from contact dermatitis

Parvathy Santhosh¹, Mamatha George¹

¹Department of Dermatology, Malabar Medical College Hospital and Research Centre, Kozhikode, Kerala, India.

***Corresponding author:**

Parvathy Santhosh,
Department of Dermatology,
Malabar Medical College
Hospital and Research Centre,
Kozhikode, Kerala, India.

drparvathysanthosh@gmail.com

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1. The grading system for patch test was first introduced by
2. The most frequent contact allergen is
3. The chelating agent that has been reported to be useful in nickel allergy is
4. The most common contact allergen in nail varnish is
5. Fingertip eczema of the non-dominant hand is a classic presentation of contact allergy to and
6. Which class of textile dye is most likely to cause sensitization?
7. False-positive irritant reactions in patch tests are liable to induce stronger reactions at day 2 than day 4, which is called the effect.
8. A combination of substances reducing the allergic reaction to individual components is called effect.
9. Staging system for contact urticaria was described by and
10. Cumulative cosmetic irritant contact dermatitis (CD) occurring in persons using multiple cosmetic products is called
11. Tristimulus colorimetry and laser Doppler flowmetry are methods of quantifying due to irritant CD.
12. Occupational acne caused by working in fast-food restaurants is called
13. Black spots preceding dermatitis is caused by contact with plant.
14. The allergen identified in Dogger Bank itch is
15. Who first identified parthenium sensitivity in India?
16. What is atomizer sign?
17. The metal allergen known to cause persistent patch test reaction is
18. Which are the tests to detect CD due to cosmetics?
19. The substances causing systemic CD in the pattern of dyshidrosiform hand eczema are and
20. The term “allergic contact urticaria” was introduced by
21. The term “allergie” was first coined by
22. The most potent acnegenic chemical agents are
23. Photoallergic reactions are most commonly caused by and
24. Open test is widely used and advocated for testing allergy to
25. Contact urticaria on buccal mucosa due to eating raw fruits is called
26. Which of the following substances is known to cross react with hydroxyzine?
 - a. Dexpanthenol
 - b. Ethylenediamine
 - c. Gentamicin
 - d. Thiuram
27. When patch testing using Finn chambers, mg of allergen in petrolatum dispersion

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has been shown to be the optimum dose.

- 5 mg
- 10 mg
- 15 mg
- 20 mg

28. Paraphenylenediamine (PPD) does not cross-react with

- Aniline dyes
- Hydrochlorothiazide
- Lignocaine
- Sulfonylureas

29. Match the following tests or chemical with the substance that they detect

- | | |
|--|------------------|
| 1. Dimethylglyoxime test | (a) Chromium |
| 2. Diphenylcarbazide test | (b) Nickel |
| 3. Lutidine test | (c) Cobalt |
| 4. 2-nitroso-1-naphthol -4-sulfonic acid | (d) Formaldehyde |

30. Match the following patterns of non-eczematous CD to causative agents

- | | |
|-----------------------------|----------------------|
| 1. Purpuric | (a) Primula obconica |
| 2. Erythema multiforme-like | (b) Azo dyes |
| 3. Lymphomatoid | (c) Kumkum |
| 4. Lichenoid | (d) PPD |
| 5. Pigmented | (e) Exotic Woods |

ANSWERS

- Bruno Bloch**
Patch testing is the diagnostic tool for allergic dermatitis. Josef Jadassohn is generally accepted as its founder. Bruno Bloch expanded and enhanced Jadassohn's technique. He created a grading system for patch test reactions in 1895.^[1]
- Nickel**
Nickel is the most frequent contact allergen. The prevalence of nickel sensitivity recorded in patch test clinics ranges between 15% and 30%.^[1]
- Tetraethylthiuramdisulfide/disulfiram**
Tetraethylthiuramdisulfide/disulfiram chelates nickel and has been reported to be of value in the treatment of nickel allergy. However, liver enzymes must be monitored carefully, as side effects are frequent.^[1]
- Tosylamide formaldehyde resin**
It can cause allergic CD, occupational CD, and onycholysis.^[1,2]
- Onion, garlic**
Onion and garlic are usually held in the non-dominant hand, while the dominant hand holds a tool to cut them.^[1]
- Disperse dyes**
Among textile dyes, disperse dyes show the maximum

potential to cause sensitization. They are chiefly anthroquinone and azo dyes. Disperse dyes may contain more than one component, along with impurities, all of which can contribute to sensitization.^[1]

7. Crescendo-decrescendo^[1]

8. Quenching^[1]

Quenching phenomenon has been explored chiefly in fragrance material aldehydes. The combined substances may alter the available bonding sites or may form a compound that follows a different detoxification pathway.

9. Amin, Maibach^[1]

The following staging system for contact urticaria syndrome has been described by Amin and Maibach.

- Stage 1: Localized urticaria, dermatitis and non-specific symptoms (itching, tingling, and burning sensation)
- Stage 2: Generalized urticaria
- Stage 3: Bronchial asthma, rhinitis, conjunctivitis, orolaryngeal symptoms (lip swelling, hoarseness, and dysphagia), and gastrointestinal symptoms (nausea, vomiting, diarrhea, and cramps)
- Stage 4: Anaphylactoid reactions (features of shock)

10. Cosmetic exhaustion

It may be possible to arrive at a diagnosis only by comprehensive patch testing for all the suspected products and their ingredients.^[3]

11. Erythema

Laser Doppler flowmetry measures the superficial blood flow through the transmission of monochromatic light emitted from a helium-neon laser to the skin surface through optic fibers. Tristimulus colorimetry uses a system for color definition known as the Commission Internationale de l'Eclairage (CIE) L*a*b* color system, which employs a three-dimensional coordinate system. L* stands for an axis for brightness, a* for a green-red axis, and b* represents a yellow-blue axis.^[3]

12. McDonald's acne

Acne lesions on face and chest can occur in people who come in contact with oil and grease while working in fast-food restaurants, particularly in those engaged in frying hamburgers.^[4]

13. *Toxicodendron* (poison ivy) plant

Black-spot poison ivy is an uncommon manifestation of contact with poison ivy (*Toxicodendron*) plants. Oxidation of the oleoresin results in formation of a black lacquer within hours of contact with the plant, which causes the appearance of irregular black spots on the skin. After a few days to weeks, an irritant dermatitis-like picture often develops. The development of an irregular black skin lesion might be alarming to patients and may encourage them to seek evaluation.^[5]

14. (2-hydroxyethyl) dimethylsulfoxonium ion

Dogger bank itch is CD of exposed skin while handling

nets containing marine organisms (bryozoans) during summer, common in European fishermen.^[1]

15. Ranade, Lonkar, and Jog, Pune, 1968
Parthenium dermatitis is caused by contact with *Parthenium hysterophorus* plant and is the most common cause of phytodermatitis in India. A member of the Compositae family of plants, it has multiple synonyms including “bitterweed,” “feverfew,” or “escobar amarga.” In India, it is also known by the names “Congress grass” or “Congress weed,” which alludes to the US congress that had allocated a shipment to Pune, India. Originally a native of tropical America, it was transported to Asia as a contaminant in cereal and grass seed shipments from America during the 1950s. *Parthenium hysterophorus* has become known as the “scourge of India” and has caused epidemics of phyto-CD.^[6,7]
16. Repeated application of fragrance to anterior neck in a sensitized individual resulting in the development of dermatitic plaque on the neck.^[8]
17. Gold salts
Gold chloride, gold sodium thiosulfate, and gold sodium thiomalate have been reported to cause persistent patch test reactions.^[8,9]
18. Patch test, repeat open application test (ROAT), and usage test
ROAT is used to assess the significance of doubtful positive patch test reactions to preparations that contain the suspected allergen in low concentration. However, false negative results may occur. The usage test is performed by reintroducing the suspected cosmetic products, one at a time, and using each product for up to 3 days.^[1]
19. Nickel, balsam of Peru^[8]
20. Fisher^[1]
21. von Pirquet^[1]
22. Halogenated aromatic hydrocarbons^[1]
23. Sunscreens and topical nonsteroidal anti-inflammatory agents
Ketoprofen may produce cross-sensitization with the UV (ultraviolet) filter benzophenone as well.^[1]
24. Hair dyes
The dye is applied to the retroauricular area. Examination of the site 2 days later is an accurate method of detecting sensitization.^[1]
25. Oral allergy syndrome
The oral allergy syndrome, also known as the pollen-fruit syndrome, occurs as a result of eating raw/unprocessed fruits, vegetables, and nuts. Symptoms include irritation, tingling, and mucosal swelling. Anaphylaxis has been reported rarely.^[1]
26. Ethylenediamine
Ethylenediamine can cross-react with hydroxyzine, meclizine, and aminophylline.^[10]
27. 20 mg^[1]
28. Lignocaine

The local anesthetics known to cross-react with PPD are ester anesthetics such as benzocaine, procaine, and tetracaine. Amide local anesthetics such as lignocaine do not cross react with PPD.^[8]

29. 1-(b), 2-(a), 3-(d), 4-(c)^[1,8]
30. 1-(b), 2-(e), 3-(d), 4-(a), 5-(c).^[1,8,11]

Declaration of patient consent

Not required as there are no patients in this article.

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Conflicts of interest

Dr. Parvathy Santhosh and Dr. Mamatha George are on the editorial board of the Journal.

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