

Patch test

This article has been translated from WikiSkripta; the **translation** needs to be checked.

The patch test is used to detect which specific substances cause allergic inflammation of a patient's skin.

Mechanism

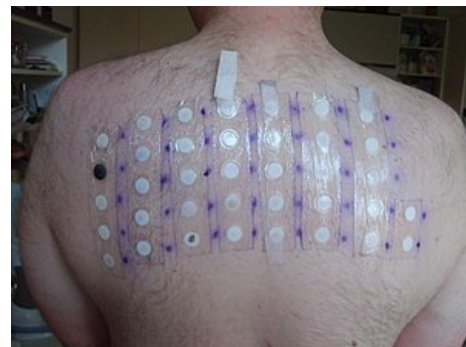
The principle is the application of the test substance under standard conditions and in the correct concentration on healthy skin (eg.the back). The following is an evaluation and interpretation. The interpretation of the results should evaluate the relationship between the test result and the clinical symptoms of the disease.

Types of tests

Closed patch test

It is a routine test in which a test substance of a given concentration dissolved in a suitable vehicle is applied to the skin and left for 48 hours. Then the test is evaluated for the first time. After another 24 hours, a second, final evaluation is performed. The intensity of the reaction is evaluated by crosses:

erythema	+
papules or oedema	++
vesicles	+++
blisters and redness	++++



Patch test

The allergic reaction in contact dermatitis usually itches, after removing the tests, the intensity of the allergic reaction increases and spreads to the surroundings, while the underlying disease may be revived.

The irritant reaction in toxic dermatitis tends to burn and hurt. After removing the test the intensity decreases. The irritation reaction may be due to too high a concentration of the test substance or increased skin irritation.

Test kits containing the most common allergens are called routine tests , less common substances are tested by special tests , mixed tests and test sets for individual professions are used for a mixture of several substances with a similar chemical structure .

Open patch test

It is used in testing substances with the expected strong irritant effect. It also tests contact urticaria or protein dermatitis. Early reactions are evaluated in 20-30 minutes and late reactions in 48-72 hours.

Scarification patch test

It is used for substances with a large molecule such as protein allergens, sulfonamides , neomycin, etc. The allergen is applied to the skin damaged by scarification without bleeding. The next procedure is identical to the closed epicutaneous test technique.

Photosensitizing patch test

It uses the same technique as a closed test, except that the tests are applied to the back twice and, after the first reading, one set is irradiated with UVA , covered with an opaque material and evaluated in 48-72 hours.

Iontophoretic patch test

Used for poorly penetrating allergens.

References

Related articles

- Dermatitis contacta allergica
- Allergens in the Environment

Bibliography

- ŠTORK, Jiří, et al. *Dermatovenerologie*. 1. edition. Galén, 2008. pp. 502. ISBN 978-80-7262-371-6.

