Long term safety of beta-lactam administration in patients with self-reported allergy and negative skin test

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BACKGROUND

• Approximately 10% of patients declare to be allergic to beta-lactam.

• Yet… only 10-15% of them have demonstrable allergy.

• In clinically suspected beta-lactam allergy and negative skin tests, the rates of long term subsequent exposures, is not clear.
OBJECTIVE

We aimed to determine the rate of established beta-lactam allergy and long term outcome among patients referred to an allergy clinic due to suspected beta lactam allergy.
METHODS

• Retrospective chart review
• Patients with suspected beta-lactam allergy, referred to the allergy clinic in Meir Medical Center (2008-2011)
• Follow-up by medical records and phone-call to assess the outcomes, 2-5 years later
After allergist assessment, Skin prick and intradermal testing (IDT) with major and minor penicillin determinants.
sterile needle

positive test:
area becomes red and swollen

suspected allergen

a number of suspected allergens are tested on the arm at the same time
Those with negative skin tests were administered an oral challenge with the suspected drug.
2-5 years later: reassessment of further beta-lactam administration
RESULTS
222 Patients with suspected penicillin allergy

10-Did not show up
6-Not completed tests
2-other

204 Completed skin-test and oral challenge

44 could not be reached on the phone

8 had positive skin test and/or oral challenge

36 had negative skin test and oral challenge

160 completed skin test and follow-up

133 had negative skin test and oral challenge

27 had positive skin test and/or oral challenge

18 had positive skin test and/or oral challenge

6 had negative skin test and oral challenge

2 not completed tests

2 other
Long term follow-up

133 patients with negative skin test and/or challenge,

69/133 (52%) received ≥1 subsequent full course of beta-lactam

19/69 (27%) received ≥ two full courses

67/69 (97.1%) NO REACTION!

2/69 (2.9%) delayed, mild rash.
CONCLUSIONS

- Only 17.1% of patients declaring a history of penicillin allergy have in fact positive skin test or challenge.

- After exclusion by skin test & one dose challenge→ Full course administration of beta-lactam **Seems to be a safe procedure.**

- Allergy exclusion enables the use of beta-lactam as **first-line treatment** without deviations from standards of care, significantly reducing the use of expensive agents.
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