Long-lasting itching subcutaneous granulomas and contact allergy to aluminium in children after diphtheria-tetanus-pertussis vaccination

Bergfors E, Trollfors B

Background and aim

Methods

We were spontaneously contacted by colleagues in the Child Health Care concerning children with itching nodules on the thigh where they had received the vaccine. The children were followed by regular interviews for up to 11 years. Contact allergy to aluminium was demonstrated by epicutaneous tests.

Results

59 children had typical symptoms with intensely itching subcutaneous nodules, often exacerbations during respiratory tract infections, and local hypertrichosis and hyperpigmentation in the itching area. The symptoms began late after the vaccination (months or years) and could last as long as 14 years. Hypersensitivity to aluminium was demonstrated in 53/54 children. Three children were investigated for malignancy when the condition was not recognised. Booster vaccination with aluminium containing vaccines was denied or postponed by parents due to the problems the itching nodules and the aluminium allergy had caused.

Conclusions

Itching vaccination granulomas and contact allergy to aluminium are poorly known adverse events to commonly used vaccines in the child health care all over the world, but important to recognize since the intense itching may have great impact on family life, the nodules may be mistaken for malignancies and further vaccination is adventured. Aluminium allergy excludes future use of antiperspirants. The incidence of itching granulomas after Infanrix® and Pentavac® cannot be estimated by this study but should be investigated.