

Localized hypertrichosis after meningococcal B vaccine

Hipertricose localizada após vacina meningocócica B

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Keypoints

What is known

- Bexsero[®] vaccine is used to confer protection against meningococcal disease.
- There are several well-recognized and reported side effects in the brochure such as are pain at the injection site, swelling, induration, erythema, general malaise.
- The exact mechanism underlying this phenomenon, acquired localized hypertrichosis, is unknown.

What is added

- We find interesting and original, that there are only one case described.
- So this case is raising the attention to a possible and a rare side effect with Bexsero[®], that all general practitioners and pediatricians should be aware of.
- This side effect was not reported yet in the brochure of this vaccine.

Vaccination is the most effective measure to prevent meningococcal disease. Bexsero[®] vaccine is used to confer protection against this disease caused by *Neisseria meningitidis* of group B. It was included in the National Vaccination Program in Portugal since October of 2020. The planned scheme is the administration of 3 doses at 2, 4 and 12 months. The adverse reactions to this vaccine reported are pain at the injection site, swelling, induration, erythema, general malaise, myalgias, arthralgias, headache and vomiting.

A 4 months old female, born in Portugal, came to the program surveillance consultation with a focal area of hair growth about 1cm x 1 cm localized on the antero-lateral side of the left thigh where Bexsero[®] vaccine was inoculated (Fig. 1). According to the mother, this increased hair growth developed approximately 2 weeks after vaccine administration at 2 months.

There was no documented history of local trauma, topical applications, or any other oral or injectable drug administered to the child. At birth, she received one dose of Hepatitis B vaccine intramuscularly, without documented side effects.

Hypertrichosis is characterized by increased hair growth independent of androgen excess. Acquired localized hypertrichosis is rarely reported at vaccination sites. The exact mechanism underlying this phenomenon is unknown, but probably is associated with aluminium adsorbed vaccines. It also has been suggested that prolonged exposure to antigen results in the production of cytokines that can affect nonimmune system cells such as hair follicles and promote localized hair growth.

This adverse reaction was reported to the National Authority for Medicines and Health Products in Portugal

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Figure 1. A focal area of hypertrichosis about 1 cm × 1 cm localized over the anterolateral side of the left thigh.

(INFARMED) and was registered in the database of the National Pharmacovigilance System. Since this clinical event occurred with an acceptable temporal relationship and the causal link with concomitant diseases or other drugs is unlikely, it was described for the first time as probable causality.

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None.

Conflicts of interest

None.

Ethical disclosures

Protection of human and animal subjects. The authors declare that the procedures followed were in accordance with the regulations of the relevant clinical research ethics committee and with those of the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

Use of artificial intelligence for generating text. The authors declare that they have not used any type of generative artificial intelligence for the writing of this manuscript, nor for the creation of images, graphics, tables, or their corresponding captions.

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