FULL TEXT ARTICLE

Injection site abscess (ISA) following an infant vaccine

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A previously well 4 month old infant presented to their local paediatric emergency department with right thigh swelling and reduced movement 4-weeks following routine dose 2 Infanrix-Hexa® (Diphtheria, Tetanus, Pertussis, Polio, *Hib* , Hep B). There was widespread eczema noted at the time of immunisation. On examination the infant was systemically well, widespread eczema, afebrile, swelling of right thigh with overlying erythema. Ultrasound confirmed abscess (Fig. 1 (f0005)); incision and drainage revealed purulent material (Fig. 2 (f0010)); culture confirmed Staphylococcus Aureus. Intravenous (IV) antibiotics (Flucloxacillin) commenced, followed by a course of oral antibiotics (Cephalexin). Patient admission included 5 days inpatient and 2 weeks hospital in the home (HITH). Wound healed within 5 weeks. Ongoing scarring at 12 months (Fig. 3 (f0015)).

Fig. 1
Weeks post immunisation.

Fig. 2
Day 3 post surgery.

Fig. 3
12 months post-surgery.

Subsequent immunisations given at the Melbourne Specialist Immunisation Clinic (SIC). Sterile wash (Chlorhexidine 0.5% in Alcohol 70%) performed prior to immunisations. There is no evidence or recommendations in the literature suggesting this practice for preventing ISA, however considering the infective nature of the abscess in this case, sterile wash was considered by the attending medical professional. World Health Organisation (WHO) indicates the use of 60–70% alcohol based solution as a skin disinfectant for different types of injections. It is not routinely recommended to perform skin disinfection for administration of vaccines [1] . No recurrence of abscess was noted following subsequent immunisations. This ISA was defined as level 1 by the Brighton Collaboration Local Reaction Working Group [2] .

ISA formation is a rarely reported adverse event following immunisation. Active/infected eczema may have been a contributing factor in this case. It is known that Staphylococcus aureus can be isolated on the skin of individuals with atopic skin disease. There is a place for future research into active/infected eczema and administration of routine immunisations.

Declaration of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

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[2]. Kohl S., Ball L., Gidudu J., Hammer S., Halperin S., Heath P., et al: Abscess at injection site: case definition and guidelines for collection, analysis and presentation of immunisation safety data. Vaccine 2007; 25: pp. 5821-5838
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