A SYMMETRICAL RASH FOLLOWING IBUPROFEN USE

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ABSTRACT

A case of symmetrical drug-related intertriginous and flexural exanthema (or SDRIFE) is described in a two year-old boy following treatment with oral ibuprofen. The erythematous, purpuric, macular, symmetrical rash appeared within a day over his neck and trunk, covering both clavicles. This was a rare reaction to ibuprofen in an unusual anatomical site. SDRIFE is more typical the gluteal, thigh or intertriginous areas, hence its more colloquial name, ‘Baboon’ syndrome.

KEYWORDS
Ibuprofen, SDRIFE, baboon syndrome, drug hypersensitivity, child

1. INTRODUCTION

The use of non-steroidal agents in is particularly common in paediatric practice, whether by prescription or over the counter. This agent is most often administered as an antipyretic or analgesic. Adverse reactions to ibuprofen are rare but are likely to be observed in children.

2. CASE PRESENTATION

A two year-old boy presented with a history of spiking temperatures and a purpuric rash.

The patient had known trisomy 21. An atrioventricular septal defect had been repaired at the age of four months without complication. There had been no other Hospital admissions. He had made appropriate developmental progress but was noted to have mouth breathing, snoring and recurrent upper respiratory tract infections. He had received a normal vaccination schedule. There was no history of eczema or wheeze in our patient, his parents or two siblings. He was not receiving any regular medications and had received ibuprofen as a neonate and small child. The parents recalled that a mild rash
over his neck had developed a few months previously following the use of ibuprofen. On that occasion it had resolved within a few days.

The morning of admission he had received ibuprofen syrup for child coryzal symptoms. His fever had resolved but within 4 hours a rash began to develop on the anterior neck. It was a well-demarcated, erythematous with a reddish-purple raised edge that spread symmetrically over both clavicles and over the sternotomy scar in a bib-like orientation (see photograph). The remainder of his skin was not involved: there was no area of tenderness or excoriation. A full blood count, urea and electrolytes, liver function and ASOT were normal; the CRP was mildly elevated at 31. Blood and urine cultures were clear, a chest radiograph showed no acute cardiopulmonary disease.

A diagnosis of allergenic, non-contact, drug-induced dermatitis was made. No specific treatment was applied but his parents were advised not to use ibuprofen in future. The rash resolved completely within a week and no sequelae or recurrences have been identified on subsequent clinic reviews.

3. DISCUSSION

Symmetrically distributed drug-induced rashes are rare in children. This rash related to oral intake of ibuprofen fulfills the diagnosis of SDRIFE or Baboon syndrome as it meets suggested criteria\(^1\). These include: 1) exposure to a systemically administered drug either at the first or repeated dose; 2) a sharply demarcated erythema of the gluteal/perianal area and/or V-shaped erythema of the inguinal/perigenital area; 3) involvement of at least one other
intertriginous/flexural localization; 4) symmetry of affected areas; 5) absence of systemic symptoms and signs\(^2\). Allergens known to cause SDRIFE include metals, medications and plants. Beta lactam are the most common antibiotics that can cause such a rash.

It has been suggested that T-cells at the dermo-epidermal junction mediate the rash. Following sensitisation, re-exposure to the agent or a cross-reacting molecule elicits a characteristic cutaneous skin reaction\(^3,4\). The rash typically has a sharply demarcated edge varying from pink-red to purple. The condition can be caused by contact allergens, contact allergenic drugs or non-contact allergens. The time between exposure to a drug or allergen leading to SDRIFE usually varies between a few hours to days, though may take many weeks. Systemic symptoms are rare. Management of SDRIFE must be based on avoidance of the inciting agent. Provocations such as patch tests may be useful in those for whom a cause is uncertain. However cross-sensitizations can confound results or advice to patients as to the risks of related non-steroidal agents\(^5\).

Ibuprofen is a non-steroidal anti-inflammatory (NSAID) that can cause rashes; the most common type are urticarial. Angioedema, bullous pemphigoid and photosensitivity reactions have been reported following its use too\(^6-8\). Our case suggests that ibuprofen can sensitize children to give rise to SDRIFE. The frequency of such reactions is difficult to measure as rashes in this clinical situation are more likely to be ascribed to an underlying infectious aetiology. This case suggests that Baboon syndrome or SDRIFE should be considered with a child presenting with a symmetrical diffuse rash with a well demarcated edge and without systemic symptoms or signs.

4. ACKNOWLEDGEMENTS

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5. REFERENCES

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