Nappy Rash (Nappy Dermatitis)

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Nappy rash is a common ailment of infancy. Paediatri-cians and primary care workers both encounter this problem relatively frequently. There is some Level 2 evidence to guide interventions for nappy rash. No level 1,2, or 3 evidence relating to diagnosis of different causes of napkin dermatitis could be found.

The appearance of the rash roughly relates to the causes of napkin dermatitis as seen in the table below.

Comments on recommendations in the protocol

Keeping the nappy area dry

All nappy rashes are made worse by an element of contact irritant dermatitis from prolonged contact with urine and faecal enzymes, so keeping the nappy area dry is relevant to the treatment of all nappy rash. Some communities strive to reduce the use of disposable nappies because of the infection hazard posed by dirty nappies left in the street and yards. All the trials of intervention recommended[2] using disposable nappies over cloth nappies because of the superior ability of disposable nappies to keep the nappy skin area dry, and the ability of disposable nappies to actually reduce the load of Candida sp. So, despite the possible public health risk, whilst not making a community-wide recommendation for all babies to use disposable to prevent nappy rash, it seems reasonable to advocate limited use of disposable nappies to treat established nappy rash.

Some authors recommend not using nappies for brief periods, where feasible, to help treat contact irritant napkin dermatitis. Baby faeces can be highly infectious, and in the context of over-crowded housing and poor hygiene it is probably reasonable to avoid recommending going without nappies, even though not wearing nappies may well help relieve a nappy rash. It may however promote the spread of gastroenteritis through the household (average household occupancy in Port Keats is 15 per house (pers. comm., Terry Bullemor, Town Clerk, Port Keats)). Parents in communities may well choose this option in any case. Use of barrier cream — such as zinc and castor oil — and avoidance of baby wipes are recommended by most authors.

Classifying cause of nappy rash by appearance

The schema followed here is an amalgamation of the diagnostic recommendations of various authorities, and represents a consensus of their views.

Choice of anti-fungal and steroid creams

There is universal recommendation of 1% hydrocortisone because more potent topical steroids can cause skin atrophy if used in the nappy area. The recommendation to never use these steroids is a bit dogmatic, but in keeping with the style of brevity and clarity adopted by the CARPA STM. Most authors recommend 1% clotrimazole, rather than mycostatin, which may

be cheaper and marginally more effective than clotrimazole. However, there is no evidence base for this distinction, and since most remote clinics often only stock one topical anti-fungal (and this is usually clotrimazole) clotrimazole is recommended for use in the protocol. Because contact irritant napkin dermatitis (even with super-infection with Candida sp.) will often clear simply by keeping the skin of the nappy area dry, the protocol recommends holding off on the topical 1% hydrocortisone and 1% clotrimazole in the first instance.

On not elaborating the causes of 'flexural' napkin dermatitis

Some babies with seborrhoeic dermatitis or psoriasis will have a rash over other parts of the body, and some will not respond to the simple generic treatment outlined in the protocol, needing tar-based ointments etc. However, in a lot of cases a specific diagnosis is not needed because, in practice, these skin diseases often will respond to such simple measures. If they do not, this contingency is covered by the recommendation 'talk with a doctor if rash is not improving'.

Appearance	Rash on convexities, but sparing flexures	Rash also involving flexures, or primarily in flexures	Jacquet's/Erosive: glazed, red shiny skin, with punched out erosions; or any other blistering
Cause	Contact irritant dermatitis	Candida sp. +/- Seborrhoeic dermatitis, psoriasis, and other primary skin diseases	Can indicate a degree of neglect, or just severe disease. Blistering can mean Staphlococcal bullous impetigo or herpes or other rarer causes
Comments	Often both	Super infected with Candida Anyway	

Diagnosing and treating variant and more severe forms of napkin dermatitis

Most erosive nappy rash will just be severe contact irritant dermatitis with or without seborrhoeic dermatitis, psoriasis or other primary skin diseases. However, some will be genital herpes or bullous impetigo or other skin diseases needing the attention of a doctor. Severe erosive napkin dermatitis sometimes can be part of a symptom complex of child neglect or primary carer stress, and these issues will need to be addressed by a more experienced practitioner.

References

1. Atkin, Spraker, Aly, et al. Pediatr Dermatol Jul–Aug 2001.
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