

A Complication of Traditional Therapy for Neonatal Conjunctivitis in Somalia: A Case Report

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Abstract: Contact dermatitis is common in the pediatric population and affects nearly 25% of all children, but it was previously underdiagnosed. It is usually divided into allergic and irritant contact dermatitis. In this case report, we present a 2-month-old infant who presented with egg-associated allergic contact dermatitis, which is complicated by bacterial superinfection. Allergic contact dermatitis can occur commonly in pediatrics due to many causes, one of them being egg; it can be managed by removing the causative agents and treating its complication.

Keywords: Allergic contact dermatitis; Allergy; Egg allergy

Introduction

Contact dermatitis is a common inflammatory skin disease, the etiology of which can be categorized as allergic or irritant. Irritant contact dermatitis is well understood and affects children; it is a common and historical misconception that allergic contact dermatitis (ACD) is rare in children (1). Allergic contact dermatitis occurs less frequently in the first few months of life and increases in prevalence with increasing age. Children as young as six months of age may be sensitized to contact allergens. A recent

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study of asymptomatic general pediatric patients less than five years of age found a sensitization rate of 24.5%. Two recent studies on adolescents demonstrated a significantly increased risk for allergic contact dermatitis in females compared with males (2). The classic clinical presentation of ACD is that of pruritic eczematous dermatitis with geometric or linear configurations. The gold standard for definitive diagnosis of allergic contact dermatitis is epicutaneous patch testing (2). In this case report, we present a case of infantile contact dermatitis caused by an egg, which was applied to the eyes as a traditional treatment for neonatal conjunctivitis, presenting bilateral conjunctivitis with bacterial superinfection.

Case report

A 2-month-old infant boy came to the pediatric outpatient department in Somalia Turkiye Training and Research Hospital, complaining of eyedischarge and fever for one month. The baby was term, delivered by a traditional birth attendant through normal vaginal delivery.

She didn't attend any antenatal visits during her pregnancy, but she had itching and purulent vaginal discharge since the last trimester. At birth, the baby had bilateral conjunctivitis with purulent discharge; after 20 days baby developed a high-grade fever. The mother managed him traditionally with an egg shower, and the baby developed purulent facial dermatitis (Figure 1). After that, they came to the pediatric outpatient department. After admission, we took a laboratory investigation (complete blood count and C-reactive protein), which revealed elevated CRP; other investigations were normal.

After admission, we started intravenous antibiotics for skin lesions, topical eye drops, corticosteroid cream, and antibiotics cream. Five days later, the patient's condition improved, and was discharged from the hospital.



Figure 1. 2-month-old infant presented with egg-caused allergic contact dermatitis with bacterial

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superinfection in the face

Discussion

Population-based studies show that the prevalence of allergy to eggs among children is between 1.5 and 3.2%. Egg white allergens include ovalbumin, ovomucoid, ovomucin, ovotransferrin, and lysozyme (1). There are also multiple allergenic proteins in egg yolk, the most common being alpha-livetin. The reduction in allergenicity by heat or gastric digestion explains those children who react to uncooked but not cooked eggs and subjects who react to eggs after cutaneous contact but not after ingestion. It is also observed that children allergic to hen's eggs are not allergic to chicken. Children are mostly found to be sensitized without having a previous history of egg ingestion. The clinical onset is mainly in the first year of life, often with the first start of food, and is always associated with atopic eczema.

Many foods are frequently involved in children, but allergy to only one or two foods is normal from around five years (3).

Most children outgrow milk, egg, soy, and wheat allergies before they reach school age. Egg allergy generally has a good prognosis. Despite recent advances in oral immunotherapy trials, the treatment of egg allergy currently relies on avoiding egg-containing foods until tolerance has developed. It remains unclear whether the ongoing low-dose exposure to egg proteins in processed foods improves the natural history of egg allergy (3).

Families of children with food allergies need good guidance on how to prevent accidental exposure to allergens, recognize symptoms of anaphylaxis, and respond appropriately. Since most children will outgrow their allergies to milk, egg, soy, and wheat, follow-up testing will help monitor the development of tolerance and indicate when these foods can be safely restarted into the child's diet. Egg avoidance advice is the most important for management. Egg allergy often resolves, and re-introduction can be achieved at home if reactions have been mild and there is no asthma. Patients with a history of severe reactions or asthma should have re-introduction guided by a specialist. All children with egg allergies should receive a vaccination for measles, mumps, and rubella (MMR). Influenza and yellow fever vaccines should only be considered in egg-allergic patients under the

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guidance of an allergy specialist. This guideline was prepared by the standards of care committee (SOCC) of the British Society for allergy and clinical immunology (BSACI) (3).

Conclusion

Contact dermatitis is a common inflammatory skin disease, the etiology of which can be categorized as allergic or irritant. The gold standard for definitive diagnosis of allergic contact dermatitis is epicutaneous patch testing.

Consent

Written and informed consent was obtained from the patient for publication of this case.

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