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Journal Article: **Pediatric Anaphylaxis in Infants and the Importance of Early Recognition**

Citation: Shaker MS, Wallace DV, Golden DBK, et al. Anaphylaxis-a 2020 practice parameter update, systematic review, and Grading of Recommendations, Assessment, Development and Evaluation (GRADE) analysis. J Allergy Clin Immunol. 2020 Apr;145(4):1082-1123. doi: 10.1016/j.jaci.2020.01.017. Epub 2020 Jan 28. PMID: 32001253.

Anaphylaxis in pediatric patients is a rapidly progressing, potentially life-threatening allergic reaction that requires prompt recognition and treatment. One of the biggest takeaways from current literature is that anaphylaxis is a clinical diagnosis. Providers should not wait for laboratory confirmation or identification of a specific trigger before initiating treatment. The 2020 practice guideline update from the Journal of Allergy and Clinical Immunology emphasizes that early intramuscular epinephrine is the most important intervention and is associated with improved outcomes, while delays in administration can increase morbidity.

A challenge in pediatrics, especially in infants and toddlers, is that anaphylaxis may not present with the classic symptoms seen in older children and adults. Younger patients are often unable to describe sensations such as throat tightness or shortness of breath and may instead present with nonspecific findings such as irritability, vomiting, rash, or swelling. Because gastrointestinal symptoms can be one of the earliest manifestations, these cases can easily be mistaken for viral illnesses or less severe allergic reactions.

This was demonstrated in the case of E.L., a 15-month-old male with a history of eczema and known food allergies to eggs and shellfish. He presented to the emergency department with diffuse urticaria, periorbital edema, genital angioedema, and two episodes of non-bloody, non-bilious vomiting. Although there was no obvious allergen exposure and he did not have respiratory distress or hypotension, his combination of skin and gastrointestinal symptoms met the clinical criteria for anaphylaxis. He was appropriately treated with intramuscular epinephrine along with antihistamines and corticosteroids and showed significant improvement without recurrence of symptoms during the observation period.

This case reinforced several important lessons for me. First, any pediatric patient who presents with skin findings and vomiting should raise concern for anaphylaxis, even when a trigger cannot be identified. Second, infants may not demonstrate the classic respiratory symptoms that many providers associate with severe allergic reactions, so maintaining a high index of suspicion is essential. Most importantly, epinephrine should always be the first-line treatment, while antihistamines and corticosteroids should be viewed as supportive therapies rather than replacements for epinephrine.

Another important aspect of care is discharge planning and caregiver education. Families should be educated on recognizing early signs of anaphylaxis, proper use of an epinephrine auto-injector, and the importance of seeking emergency care after administration. Because biphasic reactions can occur, appropriate observation and follow-up with an allergy specialist are also important components of management.

Overall, this case was a good reminder that pediatric anaphylaxis can present in subtle ways, particularly in infants. Early recognition, prompt administration of epinephrine, and thorough caregiver education remain the key factors in preventing serious complications and improving patient outcomes.