AAAAI Annual Meeting- Seminar #4811

Difficult Cases In Anaphylaxis: Biphasic & Protracted Anaphylaxis

Moderators:

- James Jay Herman, MD  Assoc. Cl. Prof. Allergy Ped/Med, Texas Tech HSC, Lubbock, TX
- Carmen Vidal, MD, PhD  Head, Department of Allergy, Assoc Prof. Medicine -University Hospital of Santiago de Compostela, Spain

Panelists:

- S. Allan Bock, MD  Cl. Prof. of Pediatrics, NJC, Univ. of Colorado, Aurora, CO
- Stephen F. Kemp, MD; Prof. of Medicine, Director of Allergy Immunology Program, Univ. Mississippi, Jackson, MS
- Phil Lieberman, MD, Cl. Prof. of Medicine, Univ. of Tennessee, Germantown, TN

Learning Objectives:

Describe Multi-phasic and Protracted Anaphylactic Reactions
Review the literature for risk factors related to reactions that have been multiphasic and/or protracted
Review proper treatment and current recommendations for these patients

Definitions:

Anaphylaxis: generally characterized by sudden, rapidly progressive symptoms sometimes fatal

Biphasic: second phase or reoccurrence occurring after first usually within 6-8 hours (range 1-78 hours)

- Reported incidence 1-20%
- Range 1-78 hours, usually 6-8 hours after resolution of first episode
- Fatalities reported; range 2-7%
- Levels 2-4 anaphylaxis events
- Undertreated initial phase
- Immunotherapy reported 10-23% biphasic reactions
- Risk factors considered:
  1. Oral antigen
  2. Medication: beta-blocker; ACE Inhibitor
  3. Delayed onset of 30 minutes between antigen and symptoms
  4. Cardiovascular events especially hypotension or Laryngeal edema during initial event
Protracted: prolonged reactions

- Fatalities ~5% reported
- Multiple stings or antigen deposited (IM injection or in oil)
- Iatrogenic prolonged exposure
- Undertreated or unrecognized initial phase

Cases:

❖ Food induced
  - Single ingestion- one vs. multiple amounts
  - Digesting time
  - Cross reacting antigens, e.g. Birch, etc.

❖ Venom/sting initiated
  - Single reported
  - Multiple stings
  - Associated asthma/atopic disease
  - ? Mast Cell Activation

❖ Alpha-gal associated
  - Delayed reaction 3-6 hours after consumption of mammalian antigen
  - sIgE to unrelated allergens such as cats, dogs, parasites
  - geographic distribution
  - relation to tick bites

❖ Mast cell activating syndrome
  - Tryptase levels significantly elevated
  - Syncopal episodes frequent in clonal; lack or urticaria
  - Idiopathic anaphylaxis as subgroup
  - Differentiation by bone marrow biopsy