Courtesy of Dr. Ian Barbash

Core Conference: Anaphylaxis

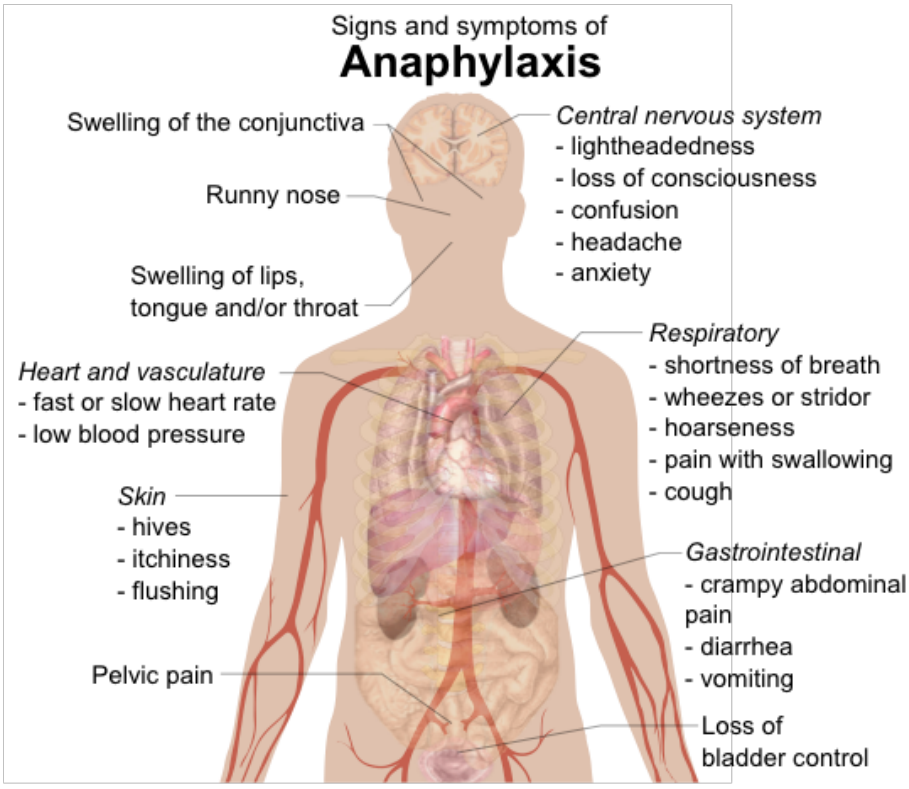

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Table 1. Causes of anaphylaxis.

Causes	Examples
Foods	Nuts, fish, shellfish, fruits
Latex	Medical and dental products, clothing, condoms
Drugs	Antibiotics, anaesthetics (NB: rare to local anaesthetics), biological agents
Venoms	Bees, wasps (fire ants in USA)
FDEIA	Commonly wheat, other foods may be involved
Food + drug	Reactions only with combination of NSAID plus a food (altered gut permeability)
Idiopathic and recurrent	No identifiable cause: often frequent and may require continuous steroids (exclude mastocytosis)

FDEIA = food-dependent exercise-induced anaphylaxis; NSAID= non-steroidal anti-inflammatory drug.

Table 3. Causes of angioedema.

	Urticaria present	Urticaria absent
Common	Stress-induced	Drug-induced
	Physical (water, heat, cold, light vibration, pressure)	(ACE-I, statins,
	Histamine-releasing foods (strawberries)	PPIs, NSAIDs)
	Infections	Stress-induced
	Thyroid disease	
	Chronic infections (helicobacter, dental, sinus, gallbladder)	
	Iron deficiency	
	B12/folate deficiency	
Rare	Scombroid poisoning (high histamine foods)	HAE Types I, II, III
	Malignancy Familial cold urticaria	Acquired angioedema secondary to lymphoma or autoimmune disease

ACE-I = angiotensin-converting enzyme inhibitor; HAE = hereditary angioedema; NSAID = non-steroidal inflammatory drug; PPI = proton pump inhibitor.

Spickett and Sproud. *Clinical Medicine* 2011;11(4):390-96

V. Key additional interventions for cardiopulmonary arrest occurring during anaphylaxis

a. High-dose epinephrine administered intravenously (ie, rapid progression to high dose). A commonly used sequence is 1-3 mg (1:10,000 dilution) slowly administered intravenously over 3 minutes, 3-5 mg administered intravenously over 3 minutes, and 4-10 µg/min infusion. The recommended initial resuscitation dosage in children is 0.01 mg/kg (0.1 mL/kg of a 1:10,000 solution) repeated every 3-5 minutes for ongoing arrest. Higher subsequent dosages (0.1-0.2 mg/kg, 0.1 mL/kg of a 1:1,000 solution) may be considered for unresponsive asystole or pulseless electrical activity. These arrhythmias are often observed during cardiopulmonary arrest that occurs in anaphylaxis.

b. Rapid volume expansion is mandatory.

c. Use atropine and transcutaneous pacing if asystole or pulseless electrical activity are present.

d. Prolonged resuscitation efforts are encouraged, if necessary, because efforts are more likely to be successful in anaphylaxis, in which the subject is often a young individual with a healthy cardiovascular system.

Kemp and Lockey. *J Allergy Clin Immunology*. 2002;110:341-8