

Abdominal pain Food allergy versus food intolerance

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Disclosures

- I have no relevant financial relationships with the manufacturers of any commercial products and/or provider of commercial services discussed in this CME activity.
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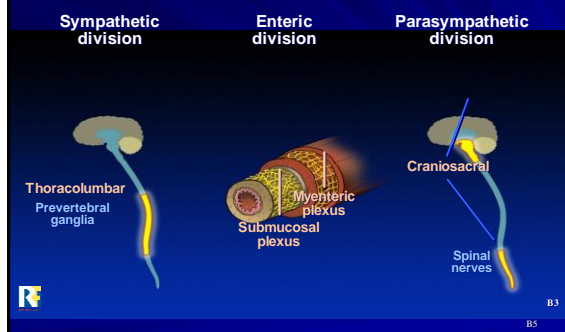
Disclosures

- Speaker Bureau-None
- Consultant-None
- Stock-No major holdings.

Objectives

- Abdominal pain
- Food allergy
- Food intolerance

Autonomic Nervous System Has Three Divisions



Pediatrics

Pain-Predominant functional abdominal pain

Sensitizing medical events:

Inflammation (infection, allergies) Distension Trauma Stress Motility disorder

Genetic predisposition

Visceral hyperalgesia

Disability

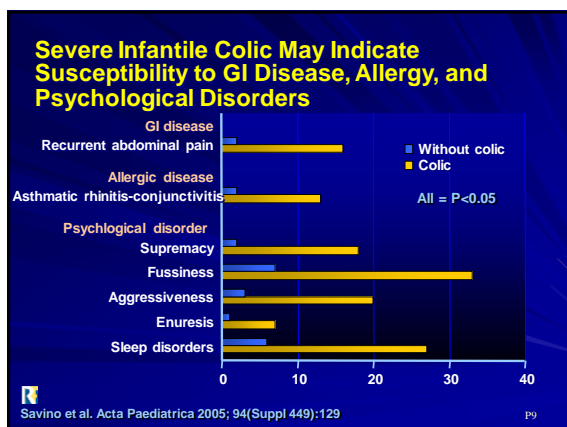
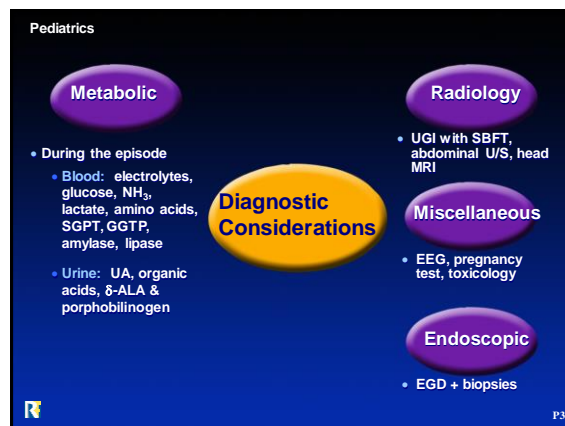
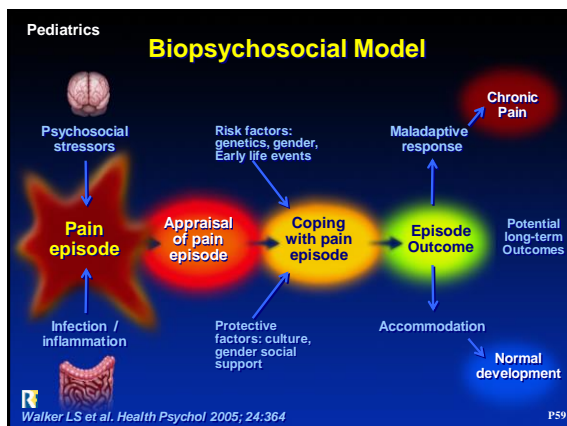
Early life events

Sensitizing psychosocial events:

Depression Anxiety Family stress Coping style Secondary gains

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Food allergy versus Intolerance

- Food allergy
 - Reproducible adverse reaction.
 - Mediated by immunologic reaction
 - IGE
 - None IGE

Food allergy versus Intolerance

- Food intolerance
 - Reproducible adverse reaction
 - Non immune mediated
 - Metabolic, pharmacologic, toxic, or undefined

Food allergy versus Intolerance

- Food allergy versus food intolerance may be difficult to distinguish.
- Food allergy sometimes has other associated allergic comorbidity

Food allergy

- More severe reactions
- Anaphylaxis
- Skin manifestation
- Vomiting
- Allergic comorbidity
 - Atopic dermatitis
 - Asthma
 - Allergic rhinitis, and eosinophilic gi diseases

Common Childhood food allergens

- Cow milk
- Soy
- Egg
- Peanut
- Wheat
- Tree nuts
- Shellfish/fish

Cow milk protein allergy

- Commonest childhood food allergy
- 2.5% prevalence
- 20% of all childhood allergy
- Community study showed
- 57% resolve by 4-5 years

Cow milk protein allergy

- Clinic based study
 - High risk population
 - 43% resolve by 10 years of age in clinic patients with higher allergy risk factors as opposed to general population study

Non IGE food allergy

- Food protein induced proctocolitis
- Breastfed 49%
- Cow milk formula 44%
- Soy formula 6.8%
- Colon biopsies >60 eosinophils/HPF

Non IGE food allergy

- Food induced enterocolitis syndrome(FPIES)
- Acute
- Chronic
- Diagnosis
 - Vomiting 1-4 hours following reintroduction
 - IV/IM Ondansetron

Non IGE food allergy

- Food protein induced enteropathy
 - Syndrome of recurrent abdominal pain, chronic malabsorptive diarrhea
 - Celiac disease
 - Cow or soy milk induced enteropathy during infancy or school age.

Non IGE food allergy

- Eosinophilic gastrointestinal disorders
 - Eosinophilic esophagitis
 - Eosinophilic gastritis
 - Eosinophilic gastroenteritis
 - Eosinophilic enteritis
 - Eosinophilic colitis

Non IGE food allergy

- Differential for EGID
 - Parasitic infection
 - Medication allergy
 - Eosinophilic granulomatosis with polyangitis syndrome(Churg-Strauss)
 - IBD
 - Hyper eosinophilic syndrome
 - Transplantation
 - Food allergy

Food intolerance

- Metabolic
 - Lactose intolerance
 - Congenital lactase deficiency
 - Sucrose intolerance
 - Congenital sucrose isomaltase deficiency
 - Maltase deficiency
 - Palatinase deficiency
 - Congenital amino acid/organic acid metabolic disorders

- Pharmacologic
 - Grapefruit and tacrolimus

- Toxic
 - Scrombroid fish poisoning
 - Honey and botulitoxin

Diagnosis

- Food challenge
- Food allergy testing
- Endoscopy and biopsies.
- Referral to the allergy specialist.

Treatment

- Food elimination and avoidance
- Acute treatment for anaphylaxis
 - Epinephrine
 - IV hydration

Conclusion

- It is difficult to differentiate abdominal pain caused by food allergy versus food intolerance
- Requires care clinical judgement

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