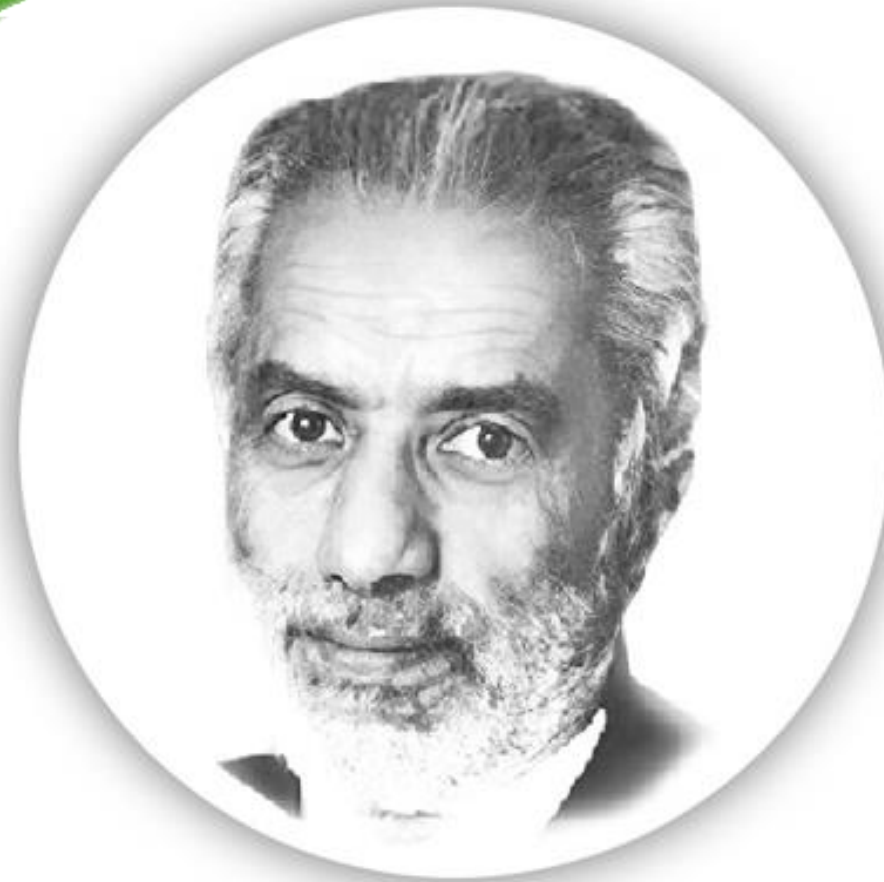




How to Manage Allergic Proctocolitis in Breastfed Infants?

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همایش سالیانه جامعه پزشکان کودکان ایران
و چهل و ششمین بزرگداشت استاد دکتر محمد قریب

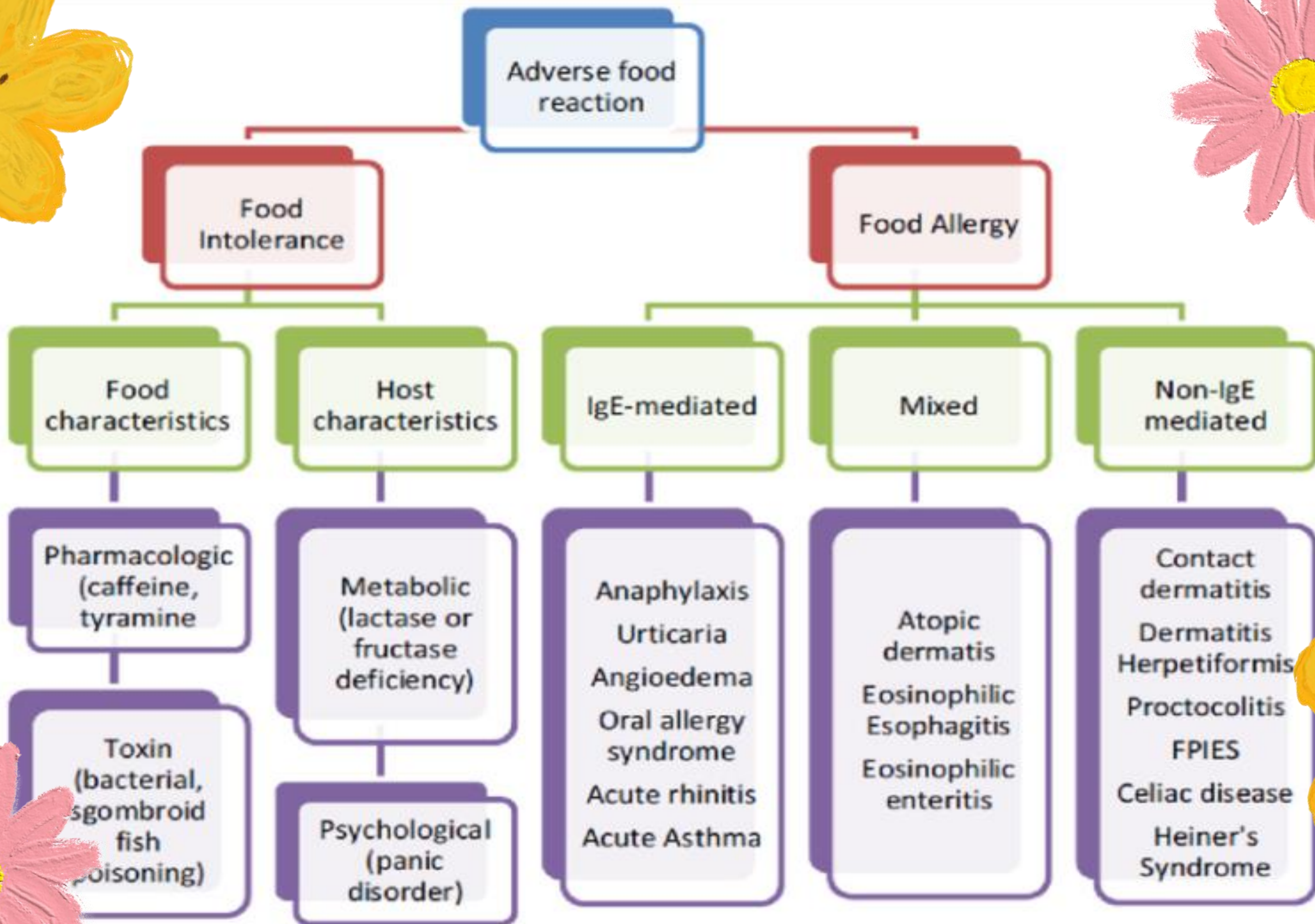
Annual congress of Iranian Society of Pediatrics
& 46th Memorial Congress of
Professor Mohammad Gharib

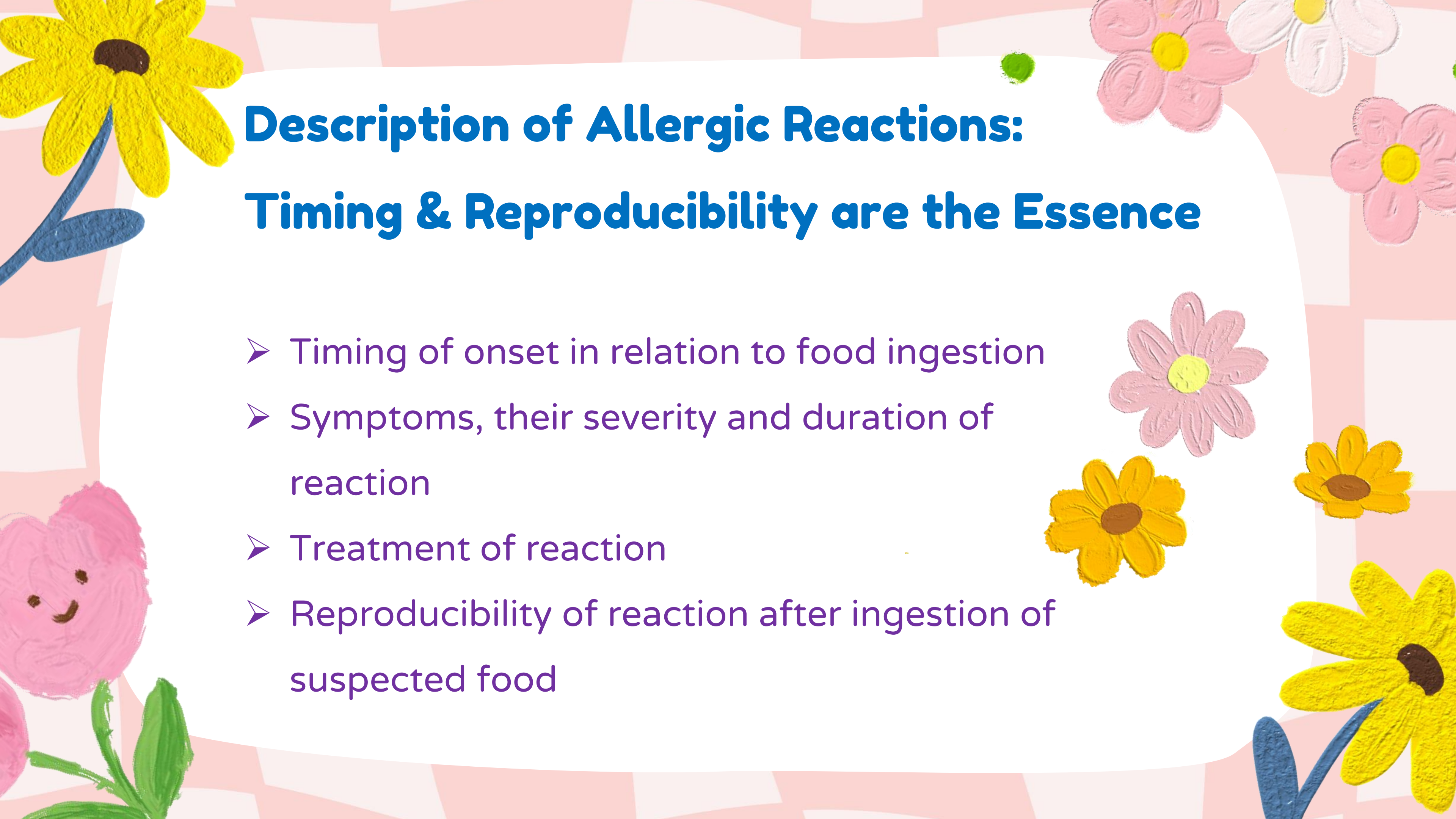
مکان: تهران، مرکز همایش های بین المللی رازی

12-15 June 2025 ۲۵-۲۲ خرداد ۱۴۰۴

Iranian Society of Pediatrics







Description of Allergic Reactions:

Timing & Reproducibility are the Essence

- Timing of onset in relation to food ingestion
- Symptoms, their severity and duration of reaction
- Treatment of reaction
- Reproducibility of reaction after ingestion of suspected food

Ig E-Mediated vs. Non-Ig E-Mediated Reactions

- Quick onset
- Anaphylaxis, urticaria, etc
- Well-defined mechanism
- Easier to diagnose
- Validated tests

IgE

Non-IgE

- Delayed onset
- Eczema, reflux, proctocolitis, etc
- Mechanism unclear
- Harder to diagnose
- No validated tests

Some Non-IgE Mediated Reactions

- Eosinophilic gastroenteropathies
- Food protein–induced proctocolitis
- Food protein–induced enteropathy
- Food protein–induced enterocolitis
- Eczema
- Reflux, colic
- Constipation

Some Non-IgE Mediated allergic Manifestations

➤ Eosinophilic esophagitis, Gastroenteritis:

- Postprandial vomiting, anorexia, abdominal distention, steatorrhea, failure to thrive, weight loss, food impaction, and gastric outlet obstruction
- A subset with food-induced IgE-mediated reactions

➤ Dietary protein enteropathy:

- Diarrhea, failure to thrive, abdominal distention, and malabsorption
- Less frequent anemia, edema, and hypoproteinemia

➤ Dietary protein enterocolitis:

- Vomiting and diarrhea

➤ Dietary protein proctocolitis:

- Gross blood in stool $\pm$ other symptoms

➤ Celiac disease:

- Diarrhea, steatorrhea, malabsorption, abdominal distention, flatulence, $\pm$ nausea and vomiting, failure to thrive, oral ulcers
- Associated skin disease: dermatitis



Cow's Milk Allergy (CMA)

Associated Proctocolitis

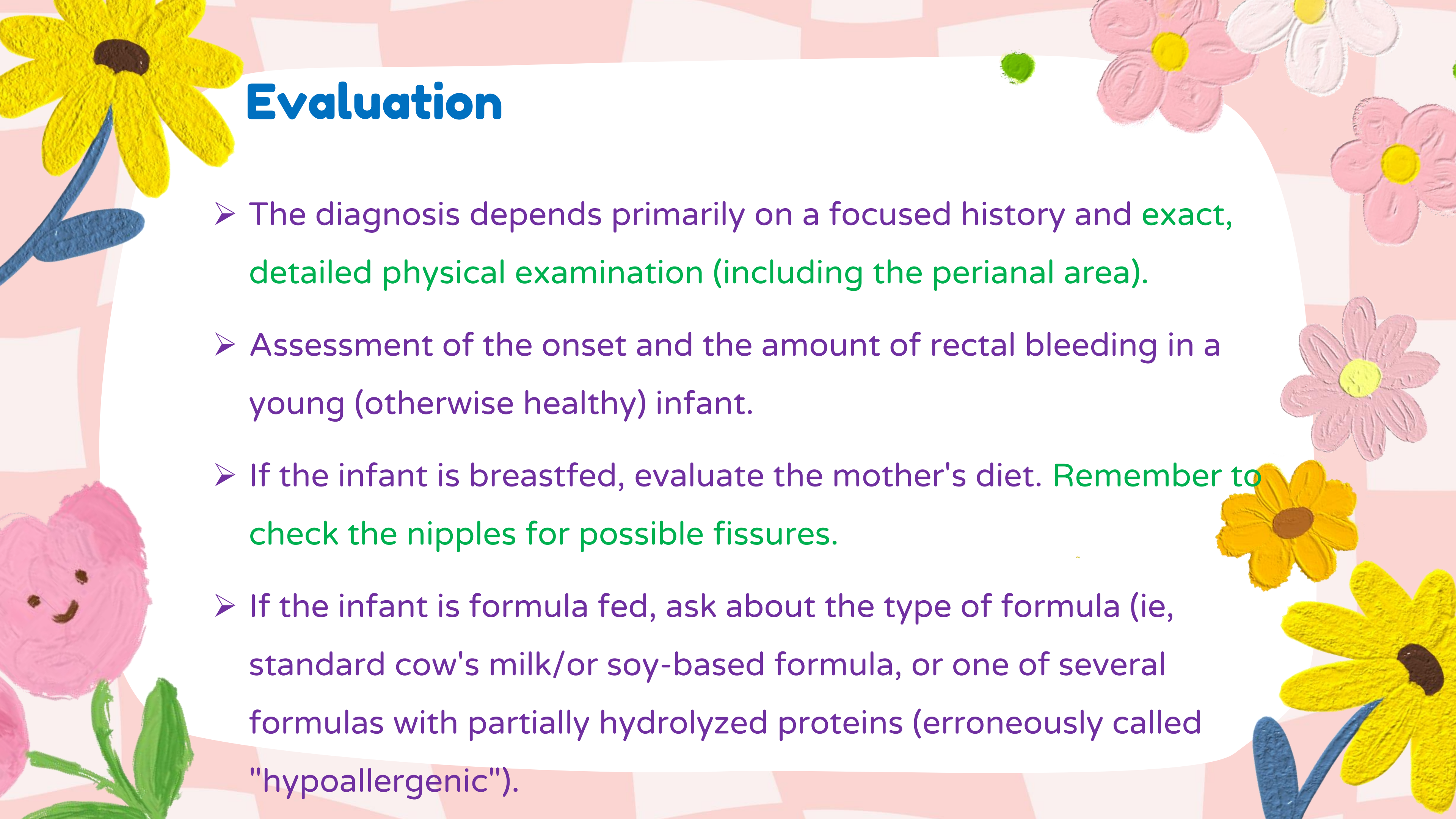
Key Concepts

Are you ready?



Epidemiology

- Food protein-induced proctocolitis appears to be a common cause of rectal bleeding in breastfed or formula-fed infants.
 - **Age of onset:** First few months of life.
 - **Symptoms:** Loose, blood-streaked stools without frank diarrhea in healthy-appearing infants, fecal WBCs.
 - **Lab Findings:** Occasional mild peripheral eosinophilia, anemia.
 - **Pathology:** Focal to diffuse colitis; Eosinophil infiltration common & nodular lymphoid hyperplasia.
 - **Natural history:** Symptoms usually resolve within one year.
 - **Food Challenge Risk:** Low risk of severe symptoms.
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Evaluation

- The diagnosis depends primarily on a focused history and **exact, detailed physical examination** (including the perianal area).
- Assessment of the onset and the amount of rectal bleeding in a young (otherwise healthy) infant.
- If the infant is breastfed, evaluate the mother's diet. **Remember to check the nipples for possible fissures.**
- If the infant is formula fed, ask about the type of formula (ie, standard cow's milk/or soy-based formula, or one of several formulas with partially hydrolyzed proteins (erroneously called "hypoallergenic").

Current Management of Food Allergy

Strict Allergen
Avoidance

Pharmacotherapy

Management

- Exclusively breastfed infants: Continued breastfeeding should be encouraged. All dairy products should be completely eliminated from the mother's diet.
- All other mammalian milks (eg, goat's and sheep's milk) should also be eliminated because of cross-reactivity between these antigens.
- Emphasize that the mother takes calcium and vitamin D supplements.

Protein hydrolysis processes to reduce allergenicity

**When Breastfeeding is
not possible**



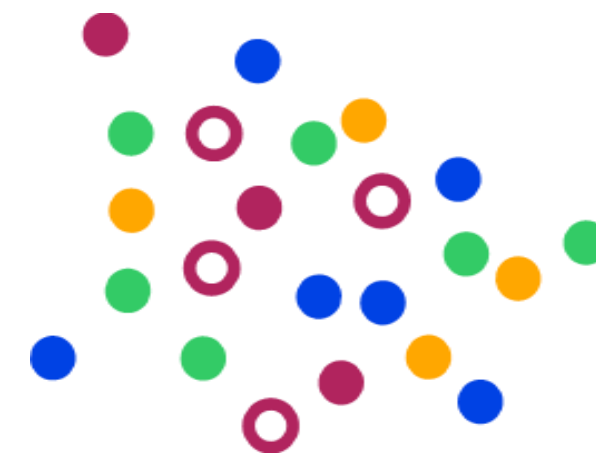
Intact Protein



Partially Hydrolysed
Protein



Extensively Hydrolysed
Protein



Substitute Infant Formulas

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- Soy based formulas??
 - ~50% soy allergy among non-IgE cow's milk allergy
- Partial hydrolysates (HA formulas)?? **Not hypoallergenic!**
- Peptide-based and Amino acid-based formulas: Lack allergenicity
- infants on an extensively hydrolyzed formula recover more rapidly when the formula is supplemented with the probiotic lactobacillus GG.
- Many infants will have loose green stools when fed an extensively hydrolyzed formula, and this does not generally indicate ongoing colitis.
- Referral to a pediatric gastroenterologist is recommended if the infant fails to improve or the diagnosis is not clear.



Natural Course of the Cow's Milk Allergy

- Tolerance develops over time in children with CMA
 - Non-IgE- mediated CMA tends to resolve more quickly than IgE- mediated CMA.
 - Most with non-IgE- mediated CMA go through it by the age of 3.
 - IgE- mediated CMA is stubborn! Usually about 64% of the involved children outgrow it by the age of 12.
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