

Eosinophilic Esophagitis: Nutrition Management

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Eosinophilic Esophagitis (EoE)

- Chronic antigen/immune driven inflammatory disease of the esophagus
- Affects all age groups, more common in males, predominant in western countries
- Endoscopic features: linear furrowing, white exudates, circular rings, strictures
- Histology: >20 eosinophils per high powered field
- Nutrition concerns: N/V/D, decreased appetite, dysphagia, inadequate intake, food aversions, malnutrition, FTT

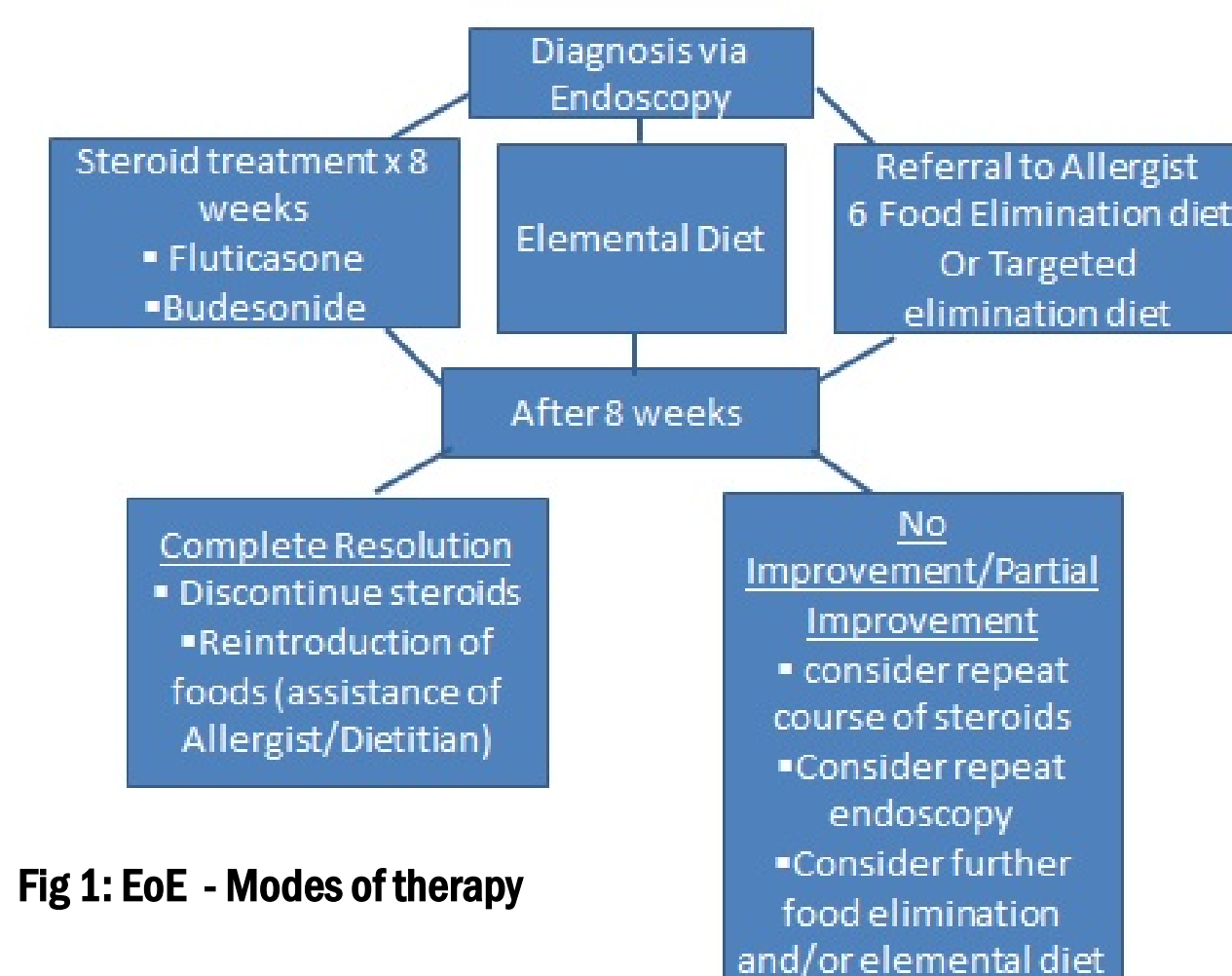


Fig 1: EoE - Modes of therapy

Nutrition Therapy for EoE

Nutrition Therapy	Description	Challenges/Barriers
Six food elimination diet	Eliminates the 6 most common food allergens – soy, milk, eggs, wheat (gluten), nuts/seeds and fish/shellfish	<ul style="list-style-type: none"> May remove unnecessary foods Increases risk of nutritional deficiencies Potential growth problems Symptoms may persist Diet compliance, QOL, cost
Elemental diet	Amino based formula that completely removes all food allergens from diet	<ul style="list-style-type: none"> Diet compliance, QOL, cost Psychosocial developmental NG or PEG are often needed
Targeted elimination diet	Removes food based on a history of food triggers and results of specific allergy tests	<ul style="list-style-type: none"> Increased risk of nutritional deficiencies Potential growth problems Lack of reliable allergen tests Extensive allergy testing done on patient Diet compliance, QOL, Cost

Assessment

- 19mo M with neurodevelopmental delays and low muscle tone
- Amit diagnosis: Failure to Thrive (FTT), poor weight gain, increased N/V
- Food and Nutrition History: General diet + Oral Pediasure (30 Kcal/oz)
 - Typical foods: blenderized meat, cream of wheat, whole milk, peanut butter, apple sauce, fruit juice, crackers, pasta, cheese, rice and vegetables

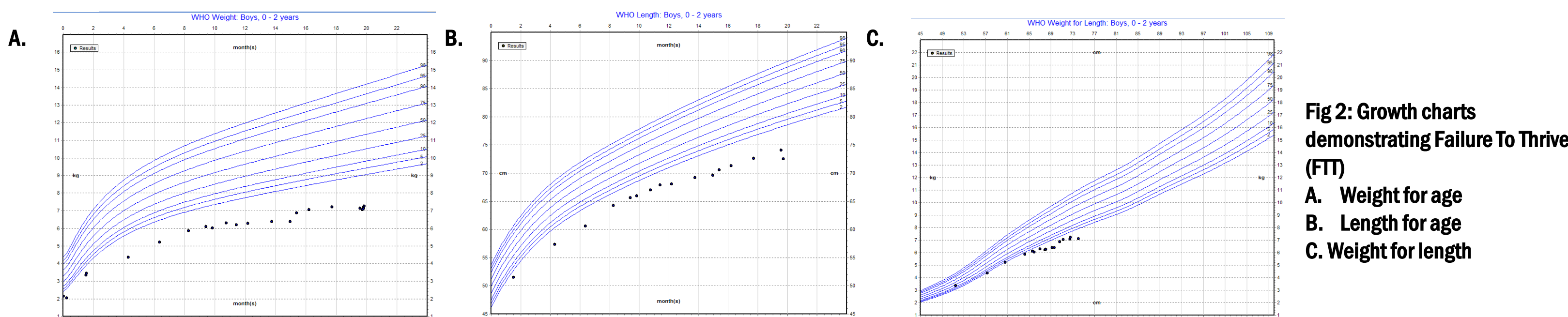


Fig 2: Growth charts demonstrating Failure To Thrive (FTT)
A. Weight for age
B. Length for age
C. Weight for length

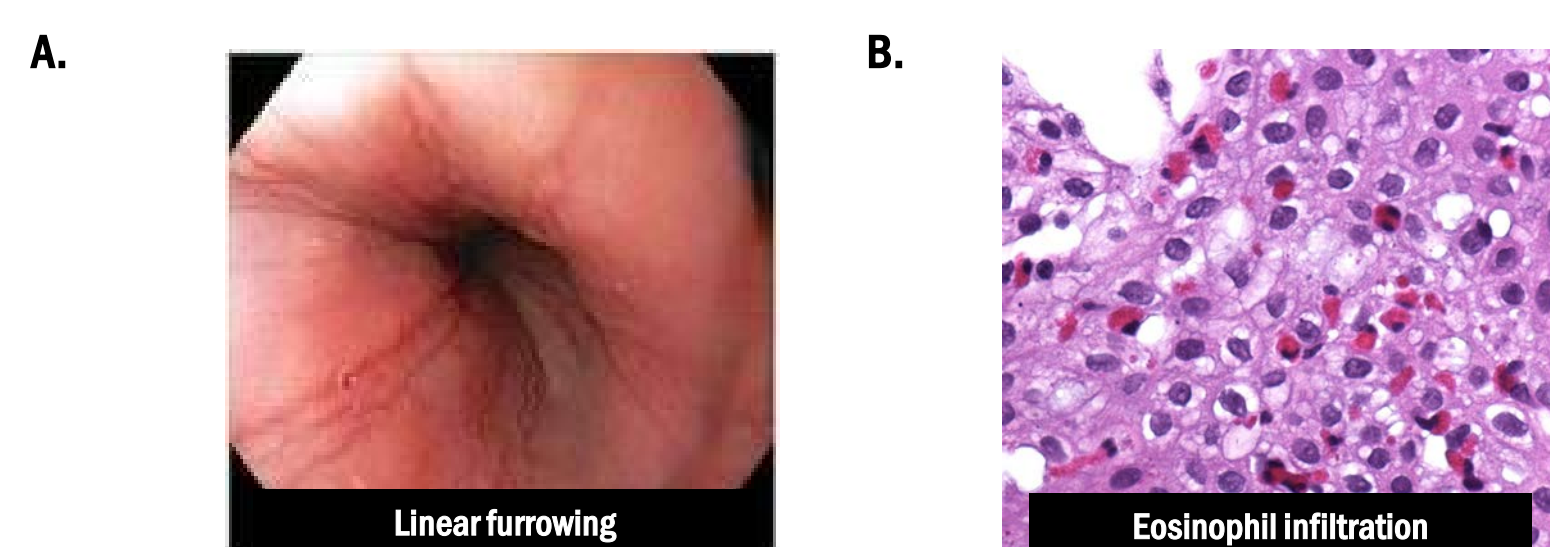


Fig 3: Endoscopy results: “The distal esophagus had furrowing and changes consistent with chronic esophagitis and/or eosinophilic esophagitis”.
A. Linear furrowing of esophagus in endoscopy
B. Histological image showing eosinophil infiltration of esophageal epithelia

Diagnosis

- Evident protein-energy malnutrition related to EoE and inadequate PO intake as evidenced by history of weight loss and weight for length z-score of -3.08.
- Altered GI function related to EoE as evidenced by finding of furrowing in endoscopy and need for a hypoallergenic diet.

Intervention

- Enteral Nutrition via NG: Supplemental nocturnal TF – Elecare Jr
- Diet: Six food elimination diet
- Nutrition Education – EoE, Elimination diet, Formula recipe, preparation and storage

Monitoring and Evaluation

- Diet: adequate and appropriate intake
- Weight and growth: no further weight loss
 - Long term goal: weight >2nd percentile, weight/length > 10th percentile
- GI: Tolerance of diet and formula; Minimize GI symptoms
- Remission: Re-introduce foods gradually with careful observation
 - Foods that trigger EoE symptoms are eliminated indefinitely