When in doubt...
When in doubt ... ..
peep in to the door next
Department of Pulmonology

Dr. Elilarasi
Dr. Kalpana
Dr. Sarath Balaji
Dr. Deepa
• 6 yrs old girl from Andhra
  ➢ Recurrent respiratory symptoms since 6 months of age
  ➢ On & off diarrhea since 3 yrs age
  ➢ Abdominal distension since 3 yrs age
  ➢ Not gaining weight since 3 yrs of age
PAST HISTORY

• H/o hospitalization at 1 ½ yrs and 2 1/2 yrs for pneumonia, treated with iv antibiotics and discharged

• Child was given empirical ATT at 4 yrs of age in view of recurrent LRI

• (non DOTS regimen- 6 months)
On examination

- Dull looking
- Thinness
- Conjunctival xerosis +
- Pallor +
- Pan digital clubbing +
- Glossitis +
- Stomatitis +
- SpO2- 97%

Vitals:  H R- 110/min
         R R- 37/min     B P-100/60
• Wt - 14kg
• Ht - 104cm
• Short stature
• Failure to thrive
Systemic examination

RESPIRATORY SYSTEM:
- RR – 37/M in
- No Retractions
- Bilateral coarse crepitations in all lung fields

ABDOMEN
- Distended
- Soft in consistency
- Prominent veins
- No free fluid
Investigation

- CBC TC-13100, D C-P 54, L 34
- H B - 8 gm,
- PCV - 30.8
- Peripheral smear microcytic hypochromic anemia
- USG abdomen – normal
- Tb screening-negative
- Retroviral screening - neg
What to think?

- Recurrent respiratory symptoms
- Diarrhea
- Pallor
- Thinness
- Clubbing
Recurrent pneumonia with malabsorption

- Cystic fibrosis
- Schwachmann diamond syndrome
- Immunodeficiency
- Or something else
Immunodeficiency workup

- Immunoglobulin profile
- Flow cytometry
- Sweat chloride test
- Normal
- Normal
- Normal
BAL

- A F B – N egative
- A erobic A nd F ungal Culture – N o G rowth
- Cytology-cellular Smear Shows Clusters Of
- A lveolar M acrophages 60% (80-90%)
- N eutrophils 15% (1-5%)
- L ymphocyte 20% (2-12%)
- E osinophils 5% (<1%)
- I mpression: lymphocytic inflammation
Back to history again

- Any food related to diarrheal episodes?

- Increased frequency of stools whenever the child eat biscuits
Is this celiac...

Think Differently, Miracles Will Follow Up!
Intestinal biopsy

- Moderate Degree Of Chronic Duodenitis
- With Variable Villous atrophy
- Crypt hyperplasia
- Intraepithelial lymphocytes
- Negative For Granuloma
- Lamina Propria-increased Plasma Cells With Eosinophils, Neutrophils.
Anti-tissue Transglutaminase Antibody-IgA Positive-105.2
• Recurrent diarrhea
• Failure To Thrive/ short stature/ anemia
• Clubbing
• Duodenal Biopsy – Villous Atrophy
• Anti Tissue Transglutaminase Ig A Positive
• Symptoms resolving with gluten free diet

❖ Celiac disease
THEN HOW TO EXPLAIN
RESPIRATORY SYMPTOMS
LUNG IN CELIAC

- Pulmonary hemosiderosis
- Emphysema
- Asthma
- Bronchiectasis
- Lymphocytic bronchoalveolitis
- Diffuse pulmonary nodules
- Interstitial fibrosis
In our case

- Recurrent respiratory symptoms
- B/L crepitations
- CT chest – changes of bronchiectasis
- BAL - lymphocytes predominant
- Complete resolution of all the changes following gluten free diet
- Celiac disease with lymphocytic bronchoalveolitis
• C E Brightling et al.. A case of cough, lymphocytic bronchoalveolitis and coeliac disease with improvement following a gluten free diet Thorax 2002;57:91-92 Case Report

• Reported a case with bronchoscopic evidence of lymphocytic airway inflammation in association with newly diagnosed coeliac disease. All features improved markedly on a gluten free diet, suggesting a causal relationship between coeliac disease, cough, and lymphocytic bronchoalveolitis.
- Lane-Hamilton syndrome (LHS) refers to the rare concurrent association of idiopathic pulmonary haemosiderosis and coeliac disease.
Prevalence - Celiac disease in South India

India

- Over 3 years (2006 - 9) IgA anti-tTG was positive in 15 children, Ten of them were from northern India,
- one was from Kerala
- two from Andhra Pradesh
- two from Tamil Nadu

Why this case?

- In India there is enormous need to spread awareness about the disease.
- The prevalence of CD may be higher than detected.
- Additional research may help to analyze various atypical manifestation of the disease in India.
ICH DATA

- First case of celiac disease to be reported from ICH
THANKS TO

• Department of Gastroenterology
Thanks to

- Hematologic – anemia
- Skeletal
  - Rickets
  - Osteoporosis
  - Enamel hypoplasia of teeth
- Muscular – atrophy
- Neurologic –
  - Peripheral neuropathy
  - Epilepsy
  - Irritability
- Endocrinology
  - short stature
  - secondary hyperthyroidism
- Dermatologic
  - Dermatitis herpetiformis
  - Alopecia aerata
  - Erythema nodosum
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Thank You