PEDIATRIC CASE #5

Chief Complaint
Parent brings fourteen month old female (Amy) to the PNP with complaints of intermittent vomiting, occurring for past 2 weeks which has increased in frequency this week.

Past History:
Prenatal:
No problems.
L&D: NSVD, Apgar 9,10
Infancy: breastfed until 12 months. 8 months Hgb 11.3; Lead level normal

Current Health Status:
Amy has had no other health problems. Her development is normal. She was in the 50% for height and weight and head circumference. She has not had a fever or any illness. She was weaned from breastfeeding at 13 months and vomiting began shortly after weaning. Mother thought that she might be intolerant to lactose and started giving her soy formula, but it has not affected the vomiting. Vomiting does not seem to be related to time, type of food, activity or illness. Amy vomits 2-3x/day and has a poor appetite. Frequently the emesis consists of undigested food even after 12 hours after ingestion.

Medications: None

Family History: Only child, lives with both parents. No family history of food intolerance or GI problems

Physical Exam:
Alert, oriented, small, thin, pale 14 month old female.
HEENOT – all central incisors are thin grey/translucent. Delayed eruption of dentition – central incisors at age 13 months
Abdomen – soft, nontender
MS – normal
Neuro – nl

What is your differential?
A. Lactose intolerance
B. Celiac disease
C. Viral Illness
D. Constipation

What diagnostic tests will help you?
A. CBC
B. Abdominal X ray
C. Upper GI
D. Celiac panel
E. Dental consult

Results
CBC shows: WBC 4.2, Hgb.11.3, Plt 200,000
Abdominal X ray – normal,
Upper GI – delayed gastric emptying
Celiac panel – elevated Deaminated Gliadian ABS IgG: 45.5 (normal is 1-10).
All other markers in normal range. IgA was on lower end of normal 21, (normal is 20-100). Low IgA has been linked to autoimmune disorders.

Plan
Refer to Pediatric Gastroenterologist
Refer to Pediatric Dentist

Diagnosis
Delayed gastric emptying of unknown etiology -
GI specialist unconcerned about elevated Deaminated Gliadian ABS IgG
Dentist – told mother not to worry about grey transparent teeth, they would fall out.

Treatment
Pediatric Gastroenterologist prescribed Elecare formula, Miralax and Prevacid which she continued to take for over the next 16 months. During this time, the vomiting decreased, but was still occasional. Amy frequently complained of abdominal pain and constipation. Her growth improved. She gained 8lbs over the 1 ½ year but often did not feel well.

Her parents were concerned and took her for additional consults. Patient was seen by four different pediatric GI specialists, her pediatrician and her dentist during this time. All providers agreed to continue the prescribed treatment since she was growing and improving. None of the providers had an explanation for Amy's thin, grey transparent teeth.

At age 2 ½, her mother decided to take her to a specialist in GI motility at a Children's Hospital. When she sent Amy's medical records to the GI Motility clinic, they requesteD that she repeat the Celiac markers which had not been repeated since age 14 months. At this time endomysial antibody IgA was postive, TTG IgA was >100 (normal is <5), all three markers were extremely high and the patient was then referred to the Celiac clinic instead of the GI motility clinic. She was seen by the Celiac team, referred for a small intestine biopsy and diagnosed with Celiac Disease.

How could her providers have prevented her from this delay in diagnosis by connecting her oral –systemic symptoms?

CASE STUDY DISCUSSION

Using the 4 IPEC Competencies (2011) related to:

1. Working with individuals of other professions to maintain a climate of mutual respect (Values/Ethics),

2. Using the knowledge of one's own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served (Roles/Responsibilities)
3. Communicating with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease (Interprofessional Communication), and
4. Applying relationship-building values and principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population-centered care that is timely, efficient, effective, and equitable (Teams and Teamwork)

Please collaborate as a team to develop a management plan for the above patient.

- Oral-Systemic Risk Assessment
  - Identify the oral-systemic assessment findings (Hx and PE HEENOT)
  - What does the history and physical tell us about this patient?
  - What additional data do you need to collect (eg. labs, diet and exercise, etc)
  - Identify oral-systemic risk factors

- Differential Diagnosis (es)
  - Identify the tentative diagnoses for the oral health problems
  - Identify the tentative diagnoses for the systemic health problems
  - Discuss the important oral-systemic connections

- Develop a management plan for the oral-systemic conditions affecting this patient, including:

  - Preventive Interventions that include: screening and behavior change counseling that are fundamental to patient centered care
    - Anticipatory guidance
    - Oral health maintenance
    - Collaboration and referral

Questions to Guide Your Interprofessional Collaboration

- Roles and Responsibilities
  - What is the scope of the role and responsibilities of each of the providers on your team today?

- Collaboration
  How can the Nurse Practitioner, Dentist and Physician collaborate to promote this patient's health?

- Team Building & Communication
  - What do you think are the most effective strategies to help a Nurse Practitioner, Physician, and Dentist function as a community-based primary care team in a primary care medical home (PCMH)?
  - What are the most effective ways for the IP team to communicate?

- Referrals
  What providers does this patient need to see? When? How often?