ORANGE YOU GLAD WE ARE LEARNING ABOUT SCURVY

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PROBLEM:
A 4-year-old male w/ PMH of autism (non-verbal) w/ signifi cantly restrictive diet due to selective food intake presenting to the ED with rash for the past 2 months, non-ambulatory status for the past 2 weeks, poor PO for the past 6 days, a subgual hemorrhage with known trauma and a dental sore.

BACKGROUND:
Early January: Cough infection, mild congestion, fevers of 104, rash on cheeks, spread to arms and legs.
February: PMO for leg pain. DX of possible transient synovitis 2/o cavit air. Instructed pt to take Motrin QID.
3/3/22: Urgent care for leg pain. XRays of hip and pelvis were negative for fracture
3/3/22: Pt stopped being able to walk, went to the ED. Increasingly grabbing his left leg and intermittently limping. Poor PO for several days, PT, INR, PT/PTT, sed rate, crp, UA, CRP wll. Electrolytes unremarkable with no transaminates, the albumin is 3.7. White blood cell count shows it is slightly low at 5.8, hemoglobin is 11.6, platelets are 164 with 47 neutrophils, no bands ANC is 2800 and not low X-ray of the leg femur read as unremarkable by radiology, there is no left hip effusion. US of both hips was negative. Ortho consulted. Pt discharged home with instructions to take Naprosyn 500 and orthopedic falls in 3-5 weeks and moisturizer for the rash.
Pt followed up with ortho outpt. They sent pt to the ED for further evaluation. Mom also noted boggy swelling on the top of his head that morning, and she didn’t think it was there last night when she bathed him. Denies any known injury. Endorses some swelling/redness of his upper L gums where he is missing a tooth. Pt has barely had solid food for the past 6 days, but has been tolerating fluids. Pt has been laying in bed with very little energy which is very unlike him. Pt can move his extremity, but refuses to ambulate.

ED COURSE:
In the ED, pt spit his first feaver of 38.0
Labs: k 3.1 (low)
CRP 60 (high)
CRP 0.8 (wll)
ESR 10 (wll)
LDH 325 (elevated)
Uric acid 3.4 (wll)
WBC 9.0 (wll)
Plt 79 (low)
Htg 10.4 (low)
Rec 20 (elevated)
Cr clg 90 (low)
Medications Given:
TYLENOL 15 mg/kg x1

HOSPITAL COURSE:
Pt admitted to the general pedi unit floor 3/29/2022:
Started him on empiric Vitamin C (100mg TID IV x total of 1 week) and all of his symptoms started to improve.

Nutrition: Of note, he has never had a fruit in his life. Presumed to be a vitamin C deficiency due to his diet, predilection for bone pain, poor diet, and subgual hemorrhage. Vitamin labs sent. Resulted with low vitamin D and zinc. Fe studies done are normal. Vitamin C came back and was extremely low at less than 5. Pt was started on high-dose IV vitamin c 100 mg 3 times daily for 7 days. Pt was transitioned to po prior to discharge and will continue with 135 mg of vitamin c and a multivitamin daily. Pt will also continue zinc and vitamin d with pt.

DISCUSSION:
A severe prolonged deficiency of Vitamin C causes a disease called scurvy.
Vitamin C plays roles in:
- collagen production, needed for forming and stabilizing the collagen triple helix
- synthesis of epinephrine, norepinephrine, dopamine, and adrenaline
- conversion of folic acid to tetrahydro folic acid
- metabolism of prostaglandins, cyclic nucleotides, adenosine triphosphate, and catecholamines
- Although utilized throughout the body, espeically important for collagen, connective tissue, dentine, and osteoid maintenance.

In the pediatric population, those most prone to develop scurvy are those:
- abnormal dietary habits
- physical disabilities
- intestinal malabsorption syndromes
- chronic renal disease
- mental conditions
- Diagnosis: combination of radiographic findings and clinical signs.
- Treatment: Vitamin C and symptomatic treatment.
- Infant and children 100-500 mg
- Adults 500-1000 mg daily for 1 month or until full recovery of clinical symptoms.
- Often times pediatric patients present with an acute crisis of ipling.
- As a PCP, is it important to take a good dietary history.
- At all child visits, it is important to evaluate those patient who have selective eating habits.
- These children can be provided with psycho-educational rehabilitation.
- Additionally, vitamin c should be given in a supplement form if the selective eating does not include foods that contain vitamin c.

REFERENCES:

Advocate Aurora Health