



**Indian man with severe weakness
for a year**

Spanish Clinical Case presentation

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- **Past medical history:**

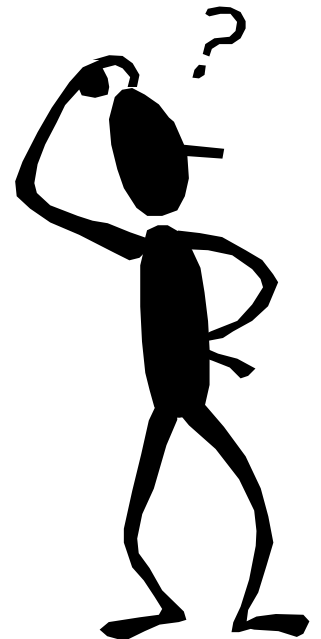
- Indian
- Vegetarian
- Habitual consumption of *Himej* due to chronic constipation.
- Lived in Spain for 15 years and had not made any trips in the past 10 years.

- **Clinical history:**

57 year-old man

Severe weakness for the last year

No other symptoms



- **Physical exam:**

Weak, fatigued and pale.

Abdomen: Soft, non-tender, no hepatosplenomegaly. External hemorrhoids without active bleeding.

- **Laboratory findings:**

Hb 7,8 g/dl, MCV 60 (80-97), MCH 17 (26-36);

Iron:13 (60-180), Ferritin 3 (8-140), TIBC 3% (15-50)



Symptomatic mild chronic **IRON DEFICIENCY ANEMIA**

Causes of iron deficiency anemia

1. Gastrointestinal bleeding:

- Aspirin/NSAID 10%
- Colonic or gastric carcinoma 5-10%
- Benign gastric ulceration 5%
- angiodysplasia 5%
- Oesophagitis /hiatal hernia 4%
- Oesophageal or small bowel tumors 2%
- Parasitos (ancylostoma) 1%

2. Without gastrointestinal bleeding

Other bleeding:

- Menstruation 30%
- Blood donation 5%
- Haematuria, epistaxis 1%

Malabsortion:

- Coeliac disease 4-6%
- Gastrectomy 5%
- H.Pylori colonisation /atrophic gastritis 5%
- Gut resection 1%
- Bacterial overgrowth 1%

Iron free diet

DIFFERENTIAL DIAGNOSIS

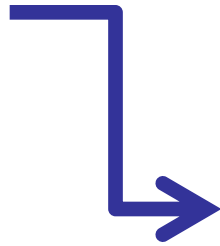
Iron deficiency anemia in patients without gastrointestinal symptoms:
“50% suffer from a underlying gastrointestinal lesion”

*The American Journal of
Medicine 1997*

So, first of all....

Fecal occult blood (FOB): positive

Barium enema: normal

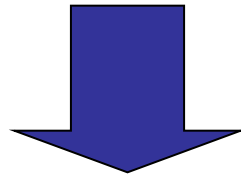


- 40% polyps
- 50% adenomas >1 cm

False negative results!!!

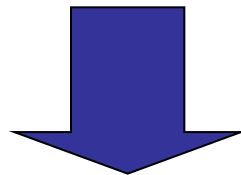
Fecal occult blood (FOB): positive
Barium enema: normal

Colonoscopy: hemorrhoids II/IV



“Evaluation of anemia caused by hemorrhoidal bleeding”

Dis Colon Rectum 1994; 37(10): 1006-7



Gastroscopy: normal

Is indicated to study the small intestine...

Ingestion barium solution : normal

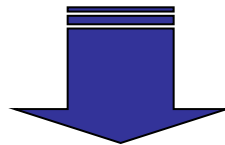


ABDOMINAL CT: NORMAL

S 90% E 95%

PNV 95% PPV 91%

CAPSULE ENDOSCOPY: NORMAL



INTESTINAL MALABSORPTION?

MALABSORPTION??

FECAL FAST TEST: NEGATIVE

H. PYLORI/ATROPHIC GASTRITIS??

GASTROSCOPY AND ANTRAL BIOPSY: NORMAL

CELIAC DISEASE??

TRANSGLUTAMINASE ANTIBODIES: NEGATIVE

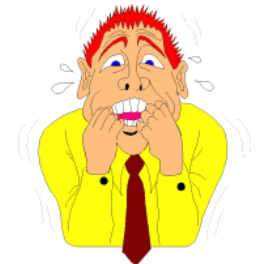
Transglutaminase antibodies
S 86-100%, E 84-94%



DUODENAL BIOPSY

INTESTINAL PARASITES/ CELIAC'S DISEASE/WHIPPLE'S DISEASE

NEGATIVE!!!!



Starting again...

- Wife and daughter with anemia too. Wife works in an herbalist's
- He is **vegetarian**, usually consumes **Himej and a lot of tea.**



Himej
(Tannic acid)

Vegetables, Milk, Ferrous salts

Non heme iron

Tannic acid
Calcium phosphate
Phytates

Áscorbic acid
Citric acid
Gastric acid

Iron bioavailability

Tannic acid influence over Iron absorption

EXCESSIVE TEA CONSUMPTION CAN INHIBIT THE EFFICACY OF ORAL IRON TREATMENT IN IRON-DEFICIENCY ANEMIA

Haematologica 1995; 80:518-520

Tea drinking and microcytic anemia in infants

The American Journal of Clinical Nutrition 1985;41: 1210-1213

A quantitative model for prediction of iron bioavailability from Indian meals: an experimental study.

Int J Food Sci Nutr 1995; 46: 335- 42

Effect of tea and other dietary factors on iron absorption.

Crit Rev Food Sci Nutr. 2000 Sep;40(5):371-98

Message to take home...

- Importance of clinical history: habits, diet, job, family...
- Sensitivity of some test:
 - FOBT is positive in 16% healthy population and in 80% of these, are false positive (people who eat red meat, or turnips or radishes (vegetarian))
- If you don't think in a disease...you're not going to find it!!!

THANKS!!

