


## CASE STUDY 1: The Tired College Student



**Laboratory Reports**

**Experience symptoms**  
Hemoglobin: 10.5 g/dL  
(Normal: 12-15 g/dL)  
Ferritin: 15 ng/mL  
(Normal: 20-150 ng/mL)  
Ferritin: 15 ng/mL  
(Normal: 20-150 ng/mL)  
**Fatigue**  
Shortness of breath on exertion  
difficulty concentrating

Laboratory reports suggesting nutritional deficiencies related due to her strict vegetarian diet

Nutritional	Nutritional Deficiencies
Vitamin B12	150 pg/mL Low
Iron	40 mcg/dL Low
Folate	5 ng/mL
Vitamin D	20 ng/mL Low
	Insufficient Insufficient

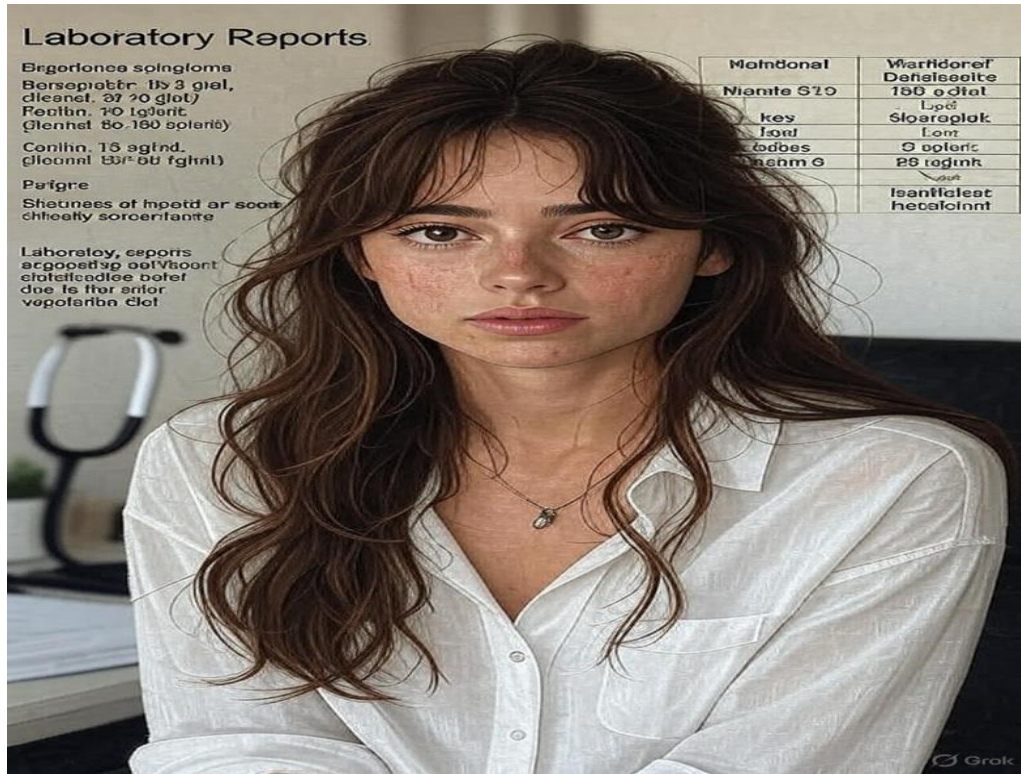
Grok

### Puzzle Questions:

1. Identify the type of anemia.
2. Which hematinic is most appropriate?
3. Why is oral therapy preferred in this patient?

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## CASE STUDY 2: Failure of Oral Therapy

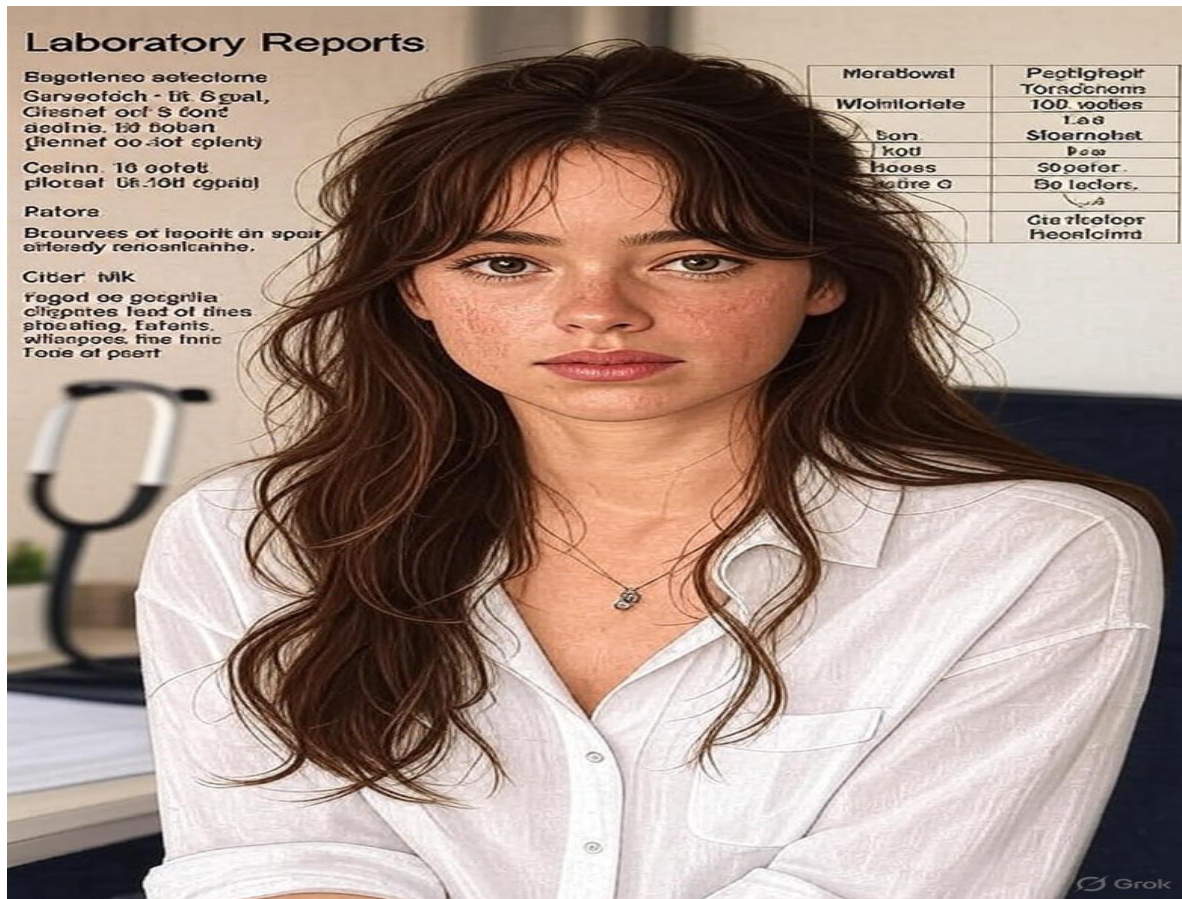


## Puzzle Questions:

1. Why did oral iron therapy fail in this patient?
2. Which form of hematinic therapy should be used now?
3. Name one advantage of parenteral iron over oral iron.

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## CASE STUDY3: The Pregnant Woman with Tingling Sensation

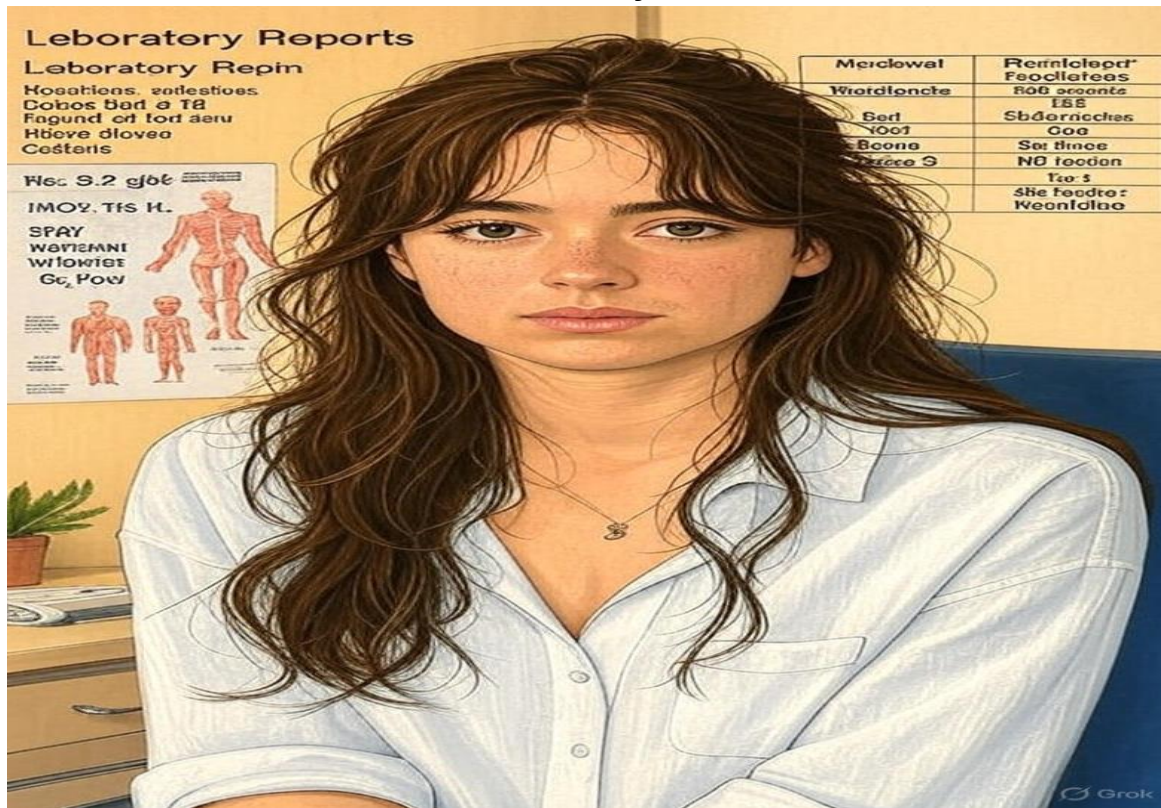


## Puzzle Questions:

1. Which deficiency is suspected?
  2. Name the hematinic used.
  3. Why is early treatment crucial in pregnancy?
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## CASE STUDY4: Anemia After Gastrectomy



### Puzzle Questions:

1. Why is this anemia occurring years after surgery?
2. Which hematinic should be given?
3. What is the preferred route of administration and why?

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## CASE STUDY 5: Child with Poor Growth



## Puzzle Questions:

1. Which nutritional deficiencies are present?
  2. Which combination of hematinics is indicated?
  3. What dietary advice should accompany treatment?
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