# Functional Abdominal Pain or Trichobezoar? A Case Report of Concealed Trichophagia in an Adolescent

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## Background

- Trichophagia and trichotillomania are often underdiagnosed, particularly in children and adolescents.
- It is estimated that around 20% of individuals with trichotillomania engage in trichophagia [1] . A rare, but serious and potentially fatal complication of this is the formation of a trichobezoar.
- Trichobezoars can impair gastrointestinal absorption of iron, potentially leading to iron deficiency anemia.
- Previous case reports have postulated that primary iron deficiency anemia could contribute to trichophagia, a form of pica [2].

## Case Report

- A 13-year-old Hispanic female with a known history of PTSD and MDD presented to the emergency department (ED) for acute abdominal pain, nausea, and vomiting.
- Abdominal pain with weight loss had been ongoing for six months with no clear etiology
- Dermatology also diagnosed alopecia areata one month earlier, prescribing topical steroids.
- Iron deficiency anemia (Hgb of 9.7) was identified and treated with iron infusions during the four months prior

| Admission Laboratory Studies | Results | Range |
|---|---|---|
| Hemoglobin (Hgb) | 11.1 mg/dl | 11.7-16.0 mg/dl |
| Iron | 16 mcg/dl | 35-170 mcg/dl |
| Transferrin | 344 md/dl | 200-400 mg/dl |
| TIBC (Total Iron Binding Capacity) | 482 mcg/dl | 250-450 mcg/dl |
| Low Transferrin Saturation | 3% | 20-30% |

**Table 1**: Admission laboratory studies supporting iron deficiency anemia

## Case Report Continued

- In the ED, she underwent computerized tomography (CT) which demonstrated a large mass in her duodenum.
- She was admitted for an exploratory laparotomy which revealed a trichobezoar (F*igure 1).*
- She received *three* iron transfusions due to persistent anemia *(Table 1*).
- Consultation liaison (CL) pediatric psychiatry service was consulted to facilitate parental awareness of trichotillomania and provide recommendations for further management.
- CL recommended further titration of Sertraline, previously started by primary care.
- Outpatient follow up with child and adolescent psychiatry was facilitated. She showed clinical response to Sertraline 100 mg daily and n-acetylcysteine 1200 mg daily.


**Figure 1:** Gross image of the 19.2 x 15.2 x 8.3 cm trichobezoar

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## Discussion

- This case illustrates the association of trichotillomania with iron deficiency anemia which has been previously described in the literature.
- One diagnostic challenge evident in this case was that despite previous encounters with several clinicians including psychiatrists and a therapist, psychosocial concerns and shame prevented the patient's disclosure of trichophagia.
- Management of psychiatric co-morbidities can help prevent recurrence of trichobezoar.
- Limited clinical trials for treatment of hair pulling disorders in adolescents exist (NAC and silymarin) so there is insufficient evidence to determine best practices [3].
- Further research of pharmacological management of trichotillomania in pediatric populations is necessary.

## Implications

- While the formation of a trichobezoar is rare, given its associated risk of morbidity and mortality, awareness by CL psychiatrists and child psychiatrists regarding assessment for trichotillomania and trichophagia is warranted.
- Special consideration for screening should be considered for adolescents with co-morbid psychiatric conditions with a history of abdominal pain and iron deficiency anemia.

## References

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