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Pregnancy associated necrotizing myopathy following gastrointestinal illness: A case report

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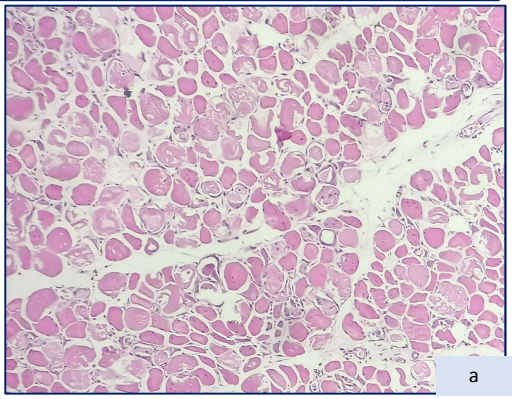
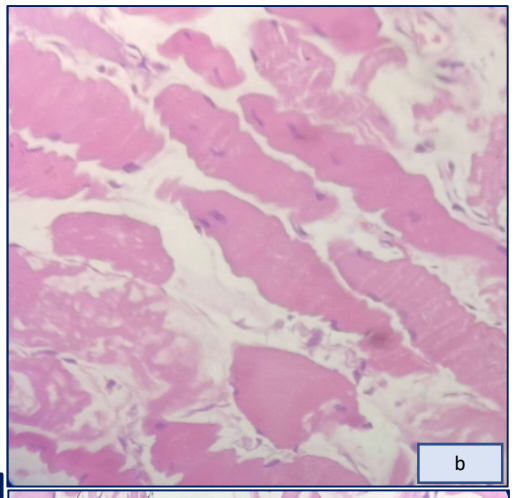
Introduction: Necrotizing myopathy is a rare subgroup of inflammatory myopathies characterized by prominent muscle fibre necrosis with minimal or absent inflammatory cell infiltration. It may arise from immune –mediated or non-immune causes,including infections,drugs,toxins and metabolic causes. Its presentation during pregnancy is uncommon and may pose diagnostic challenges because of overlapping obstetric, infectious and immune-mediated conditions.

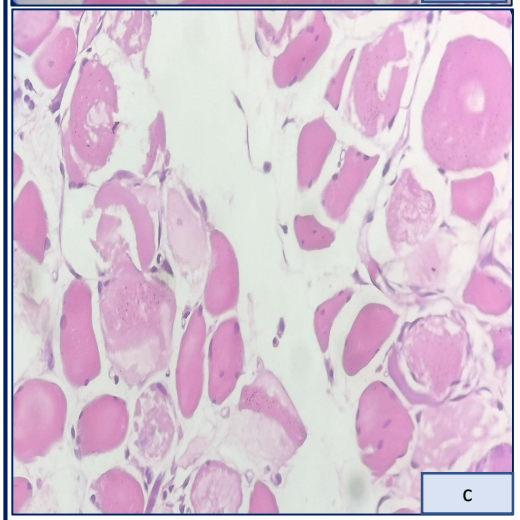
Case Report

- **21-year-old primigravida,20 weeks of gestation,** previously unaware of her pregnancy ,**No drug history**
- Presented with a **one week history of diarrhoea and vomiting,** followed by progressive **bilateral lower-limb pain and proximal muscle weakness**
- Investigations revealed **severe pre-eclampsia,** necessitating **hysterotomy.**
- Initial Serum creatine kinase **(CK) exceeded 10,000 U/L** and remained markedly elevated following pregnancy termination
- **EMG demonstrated a myopathic** pattern while **nerve conduction studies were normal**.
- **ANA positive, anti-dsDNA antibodies negative**
- **Anti-SRP and anti-HMGCR** antibodies **were not tested**.
- **Muscle biopsy :** prominent myofibre necrosis ,myophagocytosis, with and a minimal inflammatory infiltrate, supporting a diagnosis of **necrotizing myopathy**.
- Intravenous and oral **corticosteroids** were commenced approximately six days after hysterotomy. CK subsequently declined from above 10,000 U/L to 5,800 U/L within approximately one week of treatment initiation, followed by a rapid reduction over the ensuing three weeks.



a)Muscle biopsy H & E, x 200-Muscle fibre necrosis and minimal inflammation





b)c) H &E, x 400-Muscle fibre necrosis ,myophagocytosis and minimal inflammation

Discussion and conclusion:

- **Normal nerve conduction studies and myopathic EMG findings :**Primary muscle disorder
- **Muscle biopsy :** Necrotizing myopathy. The differential diagnoses included immune-mediated necrotizing myopathy , post-infectious muscle injury and possible contribution from severe preeclampsia.
- **ANA positivity :** Possible autoimmune process (not specific)
- **Absence of anti-SRP and anti-HMGCR antibody testing :** Limited further immunological classification.
- **The persistence of high serum CK levels after pregnancy termination, followed by substantial biochemical improvement following corticosteroid initiation:** Suggested a possible immune-mediated mechanism.