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Severe Neutropenia due to Carbimazole: Importance of Early Recognition & Management

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Background: Carbimazole, a frontline antithyroid medication, can rarely induce agranulocytosis or severe neutropenia—potentially life-threatening hematologic complications. Early detection and prompt intervention are essential to prevent serious outcomes.

Case Presentation: A patient undergoing carbimazole therapy developed profound neutropenia. The diagnosis was established through comprehensive blood work detecting a significant drop in neutrophils. Immediate discontinuation of the drug, in addition to supportive measures such as granulocyte colony-stimulating factor (G-CSF) administration, led to rapid recovery of neutrophil counts. Regular monitoring allowed timely intervention before severe infection could ensue.

Discussion: Although carbimazole-induced neutropenia is rare, clinicians must vigilantly monitor Complete Blood Counts (CBCs) during therapy. Patient education on early warning signs (fever, sore throat) is critical. This case supports existing literature on the reversibility of hematologic toxicity with appropriate management.

Conclusion: High clinical suspicion, routine CBC monitoring, immediate drug cessation, and supportive therapies such as G-CSF are key in managing carbimazole-induced severe neutropenia. This case highlights the importance of early recognition to mitigate morbidity and offers a structured management algorithm for similar future events.