

Postoperative Hypocalcemia After Anterior Mediastinal Mass Resection and Thymectomy

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INTRODUCTION

- Postoperative hypocalcemia is well documented in thyroid surgery but is less commonly associated with procedures involving the thymus or anterior mediastinal masses
- This case highlights the importance of considering hypocalcemia in postoperative management of thymectomy or anterior mediastinal mass resection

CASE DESCRIPTION

Patient Profile:

- 52-year-old female with persistent hyperparathyroidism, hypothyroidism, and a history of total thyroidectomy 17 years ago
- Other Medical History: hypertension, type 2 diabetes mellitus

Chief Complaint:

- Bilateral hand spasms, upper extremity paresthesia, and weakness, 9 days post-VATS thymectomy and anterior mediastinal mass removal

Findings:

- Preoperative PTH: >14 pg/mL; Postoperative PTH: 3.6 pg/mL
- Serum calcium: 4.9 mg/dL; PTH: 2 pg/mL
- Positive Chvostek sign

Management:

- IV calcium gluconate pushes and drip, Calcitriol, Vitamin D3, and PO calcium carbonate initiated
- Gradual improvement in calcium levels over 5 days

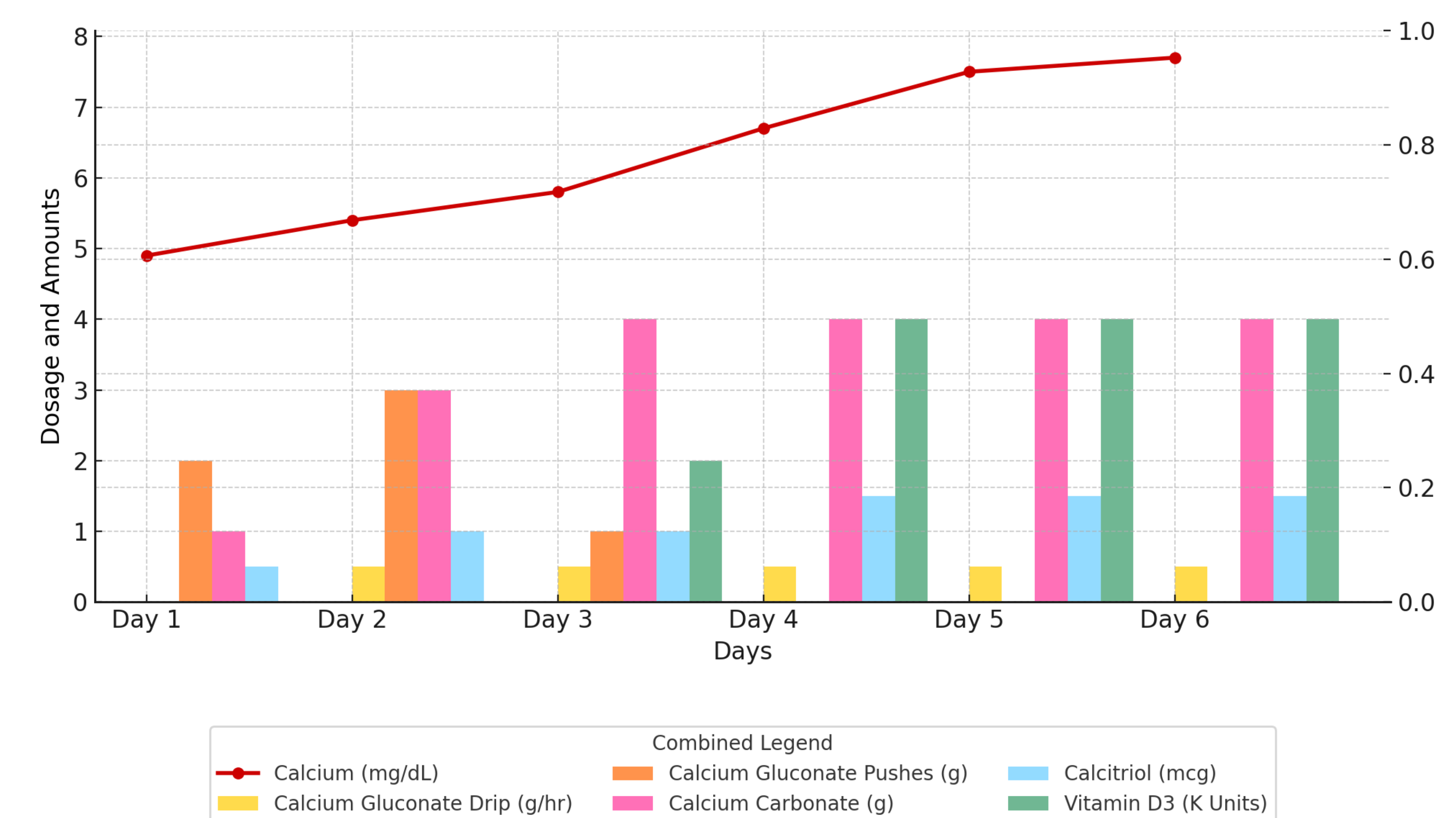
DISCUSSION

- **Thyroid Surgery vs. Thymus Surgery:** Hypocalcemia is a recognized complication in thyroid surgeries but not as well studied in thymectomies
- **Ectopic Parathyroid Tissue:** This patient's risk was likely increased due to the removal of ectopic hypercellular parathyroid tissue
- **Postoperative Monitoring:** Calcium and PTH levels should be closely monitored after surgery, especially in cases with suspected ectopic parathyroid tissue

CONCLUSION

- **Consideration of Hypocalcemia:** Hypocalcemia should be a consideration in patients undergoing thymectomy or anterior mediastinal mass resection
- **Postoperative Monitoring:** Regular monitoring of calcium levels is essential postoperatively, and preoperative supplementation with calcium or Vitamin D may help mitigate the risk

Chart 1. Graph Depicting the Calcium Response to Treatment



REFERENCES

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