

Spontaneous neck hematoma associated with parathyroid adenoma

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Case Image

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Consent

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy

Key Clinical Message

We should consider parathyroid extraglandular bleeding for patients with acute neck pain and swelling. Evaluation of serum calcium and parathyroid hormone (PTH) levels is crucial for a suspected neck hematoma associated with parathyroid adenoma.

Case

A healthy 43-year-old woman presented with acute odynophagia and dysphagia, accompanied by anterior neck swelling. She had no history of trauma or medical procedures. She had no systemic symptoms of inflammation or infection. Physical examination revealed diffuse non-tender swelling of the neck without rash. An initial CT scan revealed a low-density lesion behind the oropharynx without contrast enhancement (**Picture A**). A Follow-up CT scan after two days demonstrated a rapid increase in the size of the lesion (**Picture B, asterisk**) with increased subcutaneous fat density (**Picture B, arrows**). In addition, ecchymosis of the anterior neck and chest appeared (**Picture C**). Laryngoscopy findings indicated a submucosal hematoma. Laboratory findings showed normal serum calcium levels and elevated PTH levels of 119 pg/mL. The level

of soluble interleukin-2 receptor, thyroid function, and coagulation function were normal. All the above findings, she was diagnosed with hematoma associated with parathyroid adenoma. Surgery was performed, and an enlarged left parathyroid adenoma was removed (**Picture D**). The PTH level was normalized within three days after surgery.

Discussion

Spontaneous neck hemorrhage is a rare and severe surgical emergency due to the traumatic rupture of vessels or extraglandular bleeding of the thyroid or parathyroid. A parathyroid extracapsular hemorrhage is a complication of parathyroid gland enlargement associated with hyperplasia, adenoma, and cancer. The precise mechanisms of such non-traumatic bleeding are not known. Some previous reports suggested that blood supplies may occasionally fail to meet the increased demands caused by the lesions (1). This case highlights the importance of a diagnostic approach for patients who present with acute neck pain, swelling, and ecchymosis. In addition to a CT scan, clues to the diagnosis include a thorough endocrine history and elevated calcium and PTH levels (2).

Acknowledgments

None.

Conflict of Interest

None declared.

Author Contributions

MO made a clinical diagnosis and drafted the manuscript; MY and MT treated the patient; KS supervised the manuscript. All authors read and approved the final manuscript.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

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Figure Legend

Figure 1

- A, Initial CT scan showed low-density lesion behind the oropharynx without contrast enhancement.
- B, Follow-up CT scan showed a rapid increase in the size of the low-density lesion (asterisk) with increased subcutaneous fat density (arrows).
- C, Ecchymosis of the anterior neck and chest appeared.
- D, Macro specimen of enlarged left parathyroid adenoma (7 x 6 x 4 mm).

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