

Angioedema in a patient with neuroendocrine tumour

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DESCRIPTION

We present a case of a man aged 60 years, who was transferred to intensive care unit (ICU) due to labile blood pressure and a failed extubation trial after right carotid endarterectomy. His medical history was remarkable for symptomatic right carotid artery disease and recently diagnosed asymptomatic large cell neuroendocrine tumours (LCNETs) of the rectum with liver metastasis (figure 1A, B), currently on chemotherapy. In the recovery room, he had stridor with hypoxia after extubation and was noticed to have marked swelling of lips, tongue and eyelids (figure 2A). He was given epinephrine and steroids and subsequently reintubated with some difficulty. During ICU stay, he was given steroids, racemic epinephrine nebulisers and H1 blockers. The next day, he had improvement of the swelling and was extubated successfully. ENT evaluation showed residual laryngeal swelling with surrounding soft tissue swelling. CT scan of the head and neck

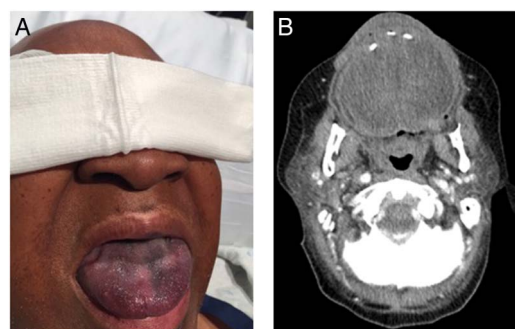


Figure 2 (A) Marked swelling of lips and tongue. (B) CT scan of the head and neck showed narrowing of upper airways.

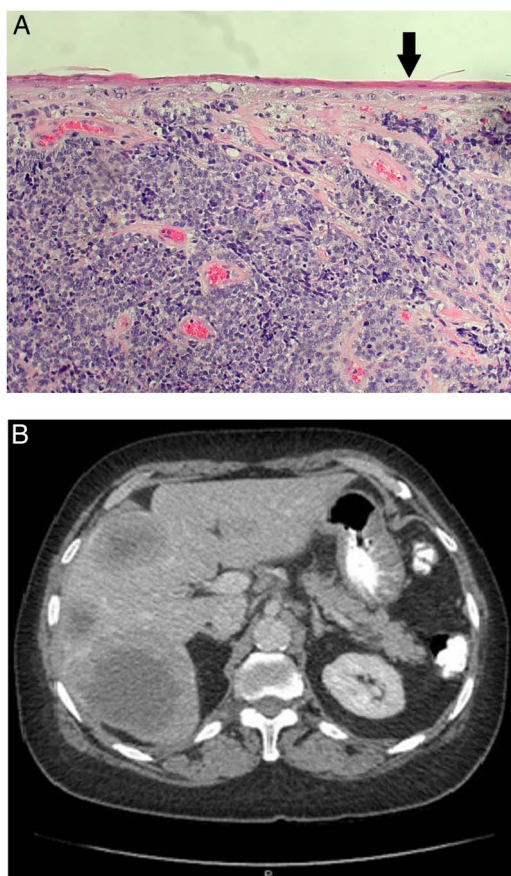


Figure 1 (A) High-grade neuroendocrine carcinoma invading beneath the anal squamous epithelium (arrow). (B) Axial CT abdomen showing multiple metastatic hepatic lesions.

Learning points

- ▶ Angioedema can be a presentation of carcinoid syndrome due to an association between the production of biogenic amines, notably histamine.¹ It is a self-limited condition but can also be life-threatening, requiring intubations or emergent/urgent tracheostomy.
- ▶ Large cell neuroendocrine tumours (LCNETs) are rarely symptomatic as Saclarides *et al*² proposed that poorly differentiated LCNETs may produce biologically active compounds but in an insufficient amount. Stress secondary to surgery, anaesthetic or radiological agents can lead to a release of an excessive amount of hormone from NETs, even leading to fatal carcinoid crisis.³
- ▶ This case emphasises the importance of asymptomatic neuroendocrine tumours undergoing surgeries, should be observed perioperatively or given prophylaxis to minimise mediator release or some life-threatening consequences.³

showed narrowing of upper airways secondary to the enlarged tongue and laryngeal oedema (figure 2B). The patient was monitored for 48 hours in the ICU and a tracheostomy kit was placed at the bedside for possible relapse. The swelling significantly improved without any further episodes. The patient had no history of similar events in previous surgeries (prior to LCNETs diagnosis, a few months ago) with the use of same anaesthetic agents and silicon or latex use. Hereditary and medication-induced angioedema workups were negative. The patient was discharged home following complete resolution of symptoms.



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REFERENCES

- 1 Rodríguez Trabado A, Riesco Miranda JA, Porcel Carreño S, *et al*. Angioedema as a single manifestation of carcinoid syndrome in a bronchial carcinoid tumor. *Allergol Immunopathol (Madr)* 2004;32:235–7.
- 2 Saclarides TJ, Szeluga D, Staren ED. Neuroendocrine cancers of the colon and rectum: results of a ten-year experience. *Dis Colon Rectum* 1994;37:635–42.
- 3 Bajwa SJS, Panda A, Kaur G. Carcinoid tumors: challenges and considerations during anesthetic management. *J Sci Society* 2015;42:132–7.

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