CASE REPORT

Gastric malignancy presenting as a neck swelling to the otorhinolaryngologists: a case of internal jugular venous thrombosis

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SUMMARY
A woman aged 69 years presented with a 2-week history of left-sided neck swelling, dysphagia and night sweats. CT revealed an internal jugular venous thrombosis, multiple pulmonary emboli and gastric thickening. Endoscopy found a haemorrhagic fundal polypoidal tumour; biopsies diagnosed a gastric adenocarcinoma, Lauren’s intestinal type. She was managed with radiotherapy and low molecular weight heparin.

BACKGROUND
Neck lumps are a common presenting symptom to ear, nose and throat (ENT) specialists. It is important to have an appreciation for conditions outside of the specialty that can present in this way, to allow for timely diagnosis and management of these problems. Discovery of an internal jugular venous thrombosis should prompt further investigation as to the underlying cause.

CASE PRESENTATION
A woman aged 69 years with a medical history significant only for osteoporosis presented to the otorhinolaryngology team with a 2-week history of left-sided neck swelling. On further questioning, she described a month history of sore throat, with 2 weeks of worsening dysphagia and odynophagia. She felt systemically well though had a poor appetite and night sweats. She did not describe weight loss. She did not have infective symptoms, no change in bowel habit and no urinary symptoms. She felt her voice was slightly hoarse, but had no airway trouble at any point. Her only medication was risdronate, and she felt that her symptoms were a side effect of this medication. She was a non-smoker and drank very little alcohol. There was no family history of note, though sadly her husband died 2 years previously of head and neck malignancy.

On examination, she appeared well but cachexic, with no airway compromise. She had a 3 cm firm, tender, fixed lump at levels II and III on the left side of her neck which was not pulsatile or fluctuant and had no skin changes. There were no other neck masses. Nasendoscopy was normal, as was chest examination. Her abdomen was soft with no organomegaly.

INVESTIGATIONS
Blood tests revealed an iron deficiency anaemia with normal lactate dehydrogenase. C reactive protein and erythrocyte sedimentation rate were mildly raised.

She underwent a CT neck and thorax that day. This showed a left internal jugular vein thrombus with a non-occlusive clot extending into the left brachiocephalic vein (figure 1). It also found marked gastric wall thickening with intragastric soft tissue that was highly suspicious for malignancy. Further to this, multiple pulmonary emboli were seen along with a 9×10 mm lymph node lateral to the descending thoracic aorta, which was felt likely to be malignant. There were further nodes in the left lower neck and supraclavicular fossa.

A CT abdomen/pelvis was arranged following these findings (figure 2). This revealed a 4 cm polypoidal mass lesion arising from the superior aspect of the gastric fundus with mural thickening at the pylorus. Multiple abnormal lymph nodes were noted throughout the abdomen, as well as a cutaneous nodule within the midline of the epigastrium—the report questioned whether this could be an early example of a Sister Mary Joseph nodule.

Oesophagogastrroduodenoscopy found a haemorrhagic fundal polypoidal tumour at 40–48 cm from the incisors. Biopsies showed this to be a moderately differentiated invasive gastric adenocarcinoma, Lauren’s intestinal type, with some surface micropapillary features and evidence of small vessel invasion. HER2 stain was negative.

Figure 1  CT neck and chest, coronal view, demonstrating left internal jugular venous thrombosis.
1 week. She was put in contact with the palliative care team. The hemorrhagic nature of her tumor; 20 Gy in 5 fractions over radiotherapy treatment on an urgent basis because of the hemorrhage potential). She began disease, with a prognosis of perhaps <6 months (though this does not factor in the high hemorrhage potential). She began radiotherapy treatment on an urgent basis because of the hemorrhage potential. She began radiotherapy treatment on an urgent basis because of the hemorrhage potential. She began radiotherapy treatment on an urgent basis because of the hemorrhage potential. She began radiotherapy treatment on an urgent basis because of the hemorrhage potential. She began radiotherapy treatment on an urgent basis because of the hemorrhage potential.

OUTCOME AND FOLLOW-UP
At the time of writing, 2 months following diagnosis, the patient was undergoing radiotherapy and continued on low molecular weight heparin injections.

DISCUSSION
Internal jugular venous thrombosis is an uncommon condition which can present as a neck lump. MRI is also of use, offering greater soft tissue contrast. Once the diagnosis of internal jugular venous thrombosis is confirmed, investigation into the underlying cause should be initiated. This may involve further imaging, laboratory tests and endoscopic examination. In some cases, such as head and neck malignancy, and in our patient who underwent a CT neck and chest, the causative pathology may be identified along with the thrombus. Management of the condition relies on treating the underlying cause, and with anticoagulant therapy.

A number of case reports have linked internal jugular venous thrombosis with systemic malignancy. Similar to our case above, a report in 2008 identified internal jugular venous thrombosis in a man aged 46 years with neck swelling and dysphagia; further work-up revealed an occult gastric carcinoma. Similarly, a 2007 report described a man aged 53 years with a diagnosis of central venous thrombosis and underlying gastric adenocarcinoma with distant metastases. He initially presented with right-sided neck swelling. The condition has also been reported in younger patients with final diagnosis of non-Hodgkin’s lymphoma and in a patient where, as was the case with our patient, the neck swelling was the first evidence of malignancy (in this case, metastatic lung cancer).

Otorhinolaryngologists frequently see patients with neck lumps, and this case serves as a reminder of a more unusual cause with an origin not related to the specialty. Specialists should be aware of conditions that may present to them despite being outside of their usual remit, and involve the relevant team when required. A thorough history and examination can elicit suggested symptoms and signs that may point towards a systemic condition, prompting early investigation as to the cause.

In conclusion, we have presented a patient presenting for the first time with a new neck lump and underlying diagnosis of gastric adenocarcinoma, with no previous suspicion for malignancy. Internal jugular venous thrombosis is an uncommon condition, which may be due to an underlying malignancy—local and systemic. The finding of a jugular venous thrombosis should prompt urgent investigation as to the provocative pathology. Specialists should be wary of the need for a thorough history and examination in patients presenting to their service who may have a systemic problem.

Learning points
- Internal jugular venous thrombosis is an uncommon condition which can present as a neck lump.
- Causes include infection, malignancy (local and systemic), surgery, central venous catheterisation, polycythemia and intravenous drug use.
- Ultrasonography is the ideal first-line diagnostic intervention, with CT a suitable alternative.
- Once identified, investigation into the underlying cause should be initiated.

Contributors JR-M was involved in the direct care of the patient, and as in the conception, design, literature review and completion of the article. JR was involved in the direct care of the patient, literature review and contributed to the writing of the discussion section of the article. He also reviewed the article following completion. TP was involved in the direct care of the patient. He contributed to the design of the case report and also to the literature review. He reviewed the article on completion.
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REFERENCES