Giant hypopharyngeal dedifferentiated liposarcoma mimicking a fibrovascular polyp: transoral resection using laparoscopic graspers

Health New Zealand
Te Whatu Ora

Joseph N. M. Luna MBChB; Christina Matthews MBChB; Tom Napier MBChB, FRACS; Angela Butler MBChB, FRACS
Department of Otolaryngology, Head and Neck Surgery, Christchurch Hospital, Health New Zealand | Te Whatu Ora Canterbury Waitaha

Timeline

Initial symptoms
Progressive dysphagia

ENT Review
Hoarseness,
6kg weight loss

Endoscopy
Pedunculated lesion

CT Imaging
~20cm mass

Surgery
Transoral resection with laparoscopic graspers

Histopathology
Dedifferentiated liposarcoma

MDT
Surveillance selected

Follow-up Imaging
MRI at ~5 months
(no recurrence)

>6 months
Asymptomatic
no recurrence

Background

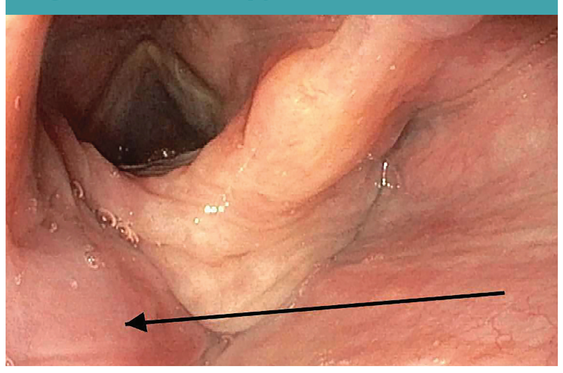
- Hypopharyngeal liposarcoma is exceptionally rare and is predominantly well-differentiated; **dedifferentiated liposarcoma at this site is rarer still.**
- These tumours may present as smooth, pedunculated submucosal lesions and closely mimic **benign fibrovascular polyps** clinically and radiologically.
- We report a New Zealand case measuring **17cm after resection and approximately 20cm on imaging**, removed transorally using laparoscopic graspers when conventional instrumentation could not safely mobilise it.

Case Presentation

64yrs

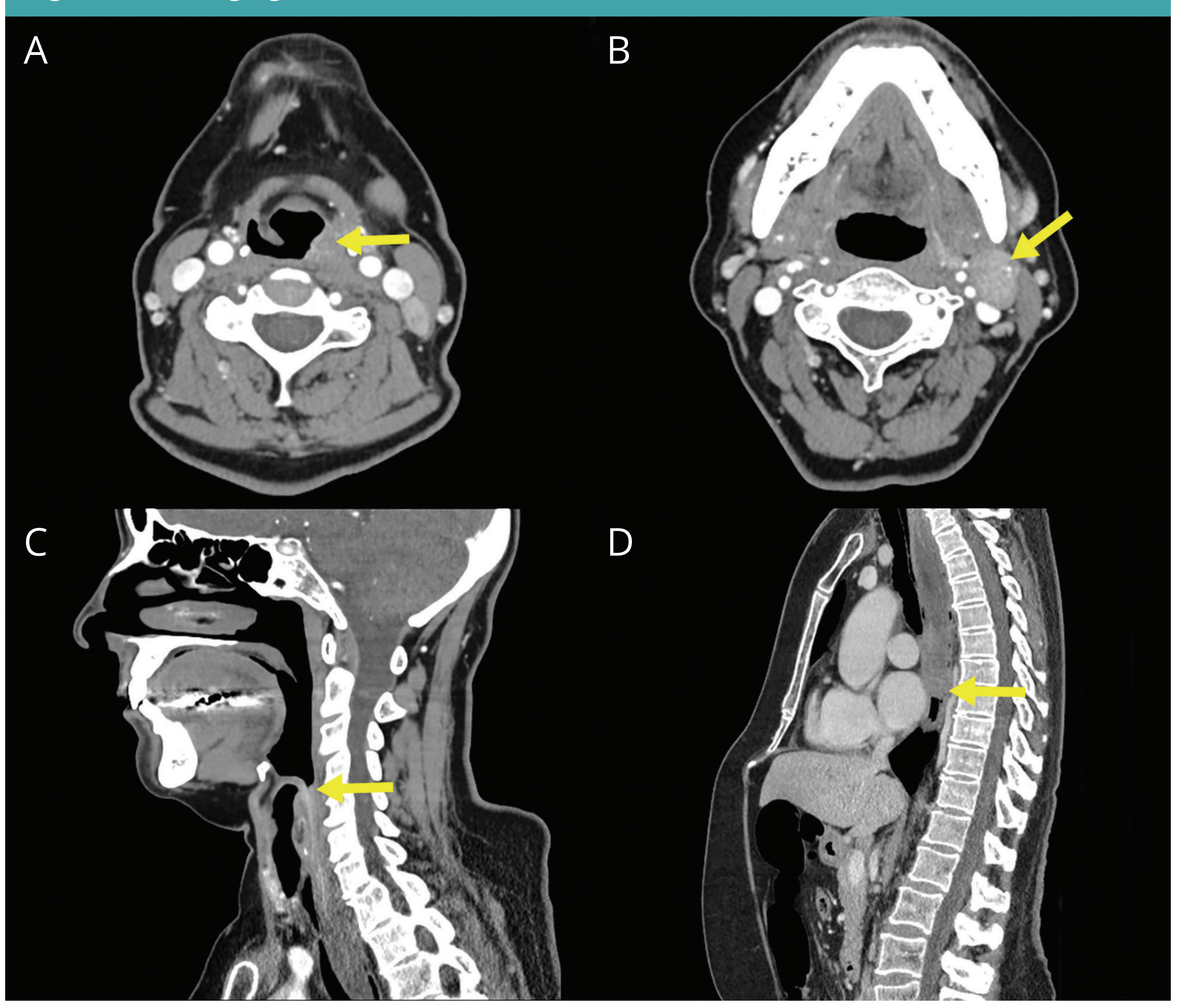
- **64-year-old woman** with **progressive solid-food dysphagia,** recent hoarseness and **6kg unintentional weight loss.**
- Flexible nasoendoscopy showed effacement of the left pyriform fossa by an apparent extrinsic mass, with normally mobile vocal folds.
- Gastroscopy demonstrated a long intraluminal pedunculated lesion extending into the oesophagus.

Figure 1: Endoscopy



Upper gastrointestinal endoscopy demonstrating the pedunculated lesion prolapsing into the oesophagus. The arrow indicates the pedicle arising from the left pyriform fossa.

Figure 2: CT Imaging (contrast-enhanced)



CT demonstrated an approximately **20cm elongated, circumscribed intraluminal mass** extending from the left hypopharynx to the mid-distal oesophagus, containing areas of fat attenuation and internal vessels. Imaging was considered characteristic of a benign fibrovascular polyp.

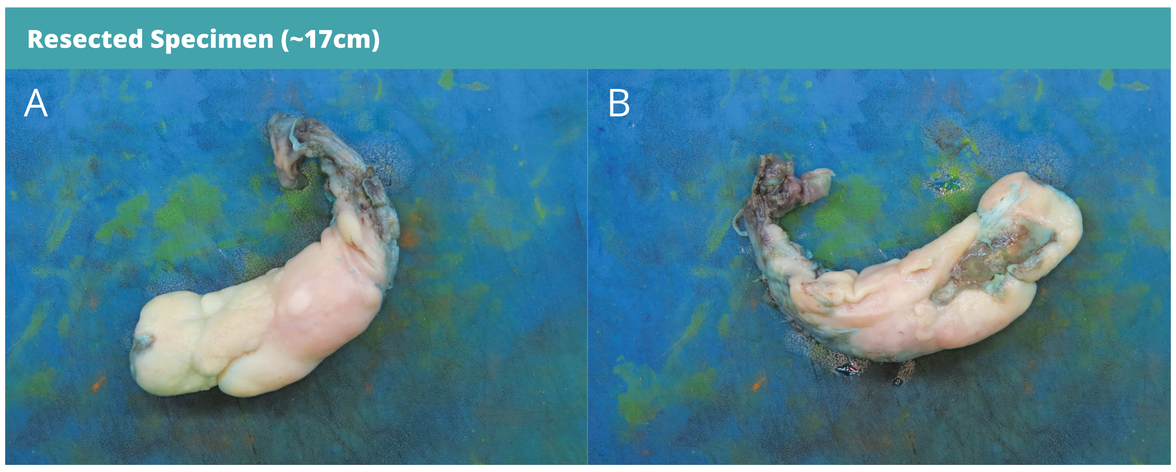
A. Axial CT: distortion of the left epiglottis and effacement of the left pyriform sinus, suggesting attachment to the left hypopharynx with distal prolapse.
B. Axial CT at C2: maximal transverse dimensions approximately 2.2 × 1.7cm.
C. Sagittal neck CT: presumed proximal attachment of the lesion to the hypopharynx.
D. Sagittal chest CT: elongated intraluminal mass extending from the left hypopharynx to the mid-distal oesophagus, with mixed soft-tissue and fat attenuation and internal vascular channels; approximately 20cm craniocaudally.

Transoral Resection with Laparoscopic Graspers

- A **17cm pedunculated lesion** arising from the left pyriform fossa was firmly impacted through the cricopharyngeus.
- Conventional laryngoscopic and oesophagoscopic instruments did not permit the controlled mobilisation.
- Laparoscopic graspers were introduced transorally through a **Bouchayer pharyngoscope**, providing the additional reach and secure purchase needed to mobilise the lesion.
- The pedicle was divided with microlaryngeal scissors and the lesion extracted en bloc; completion rigid oesophagoscopy confirmed an intact oesophagus.

Key technical challenge: cricopharyngeal impaction prevented controlled mobilisation with conventional transoral instruments.

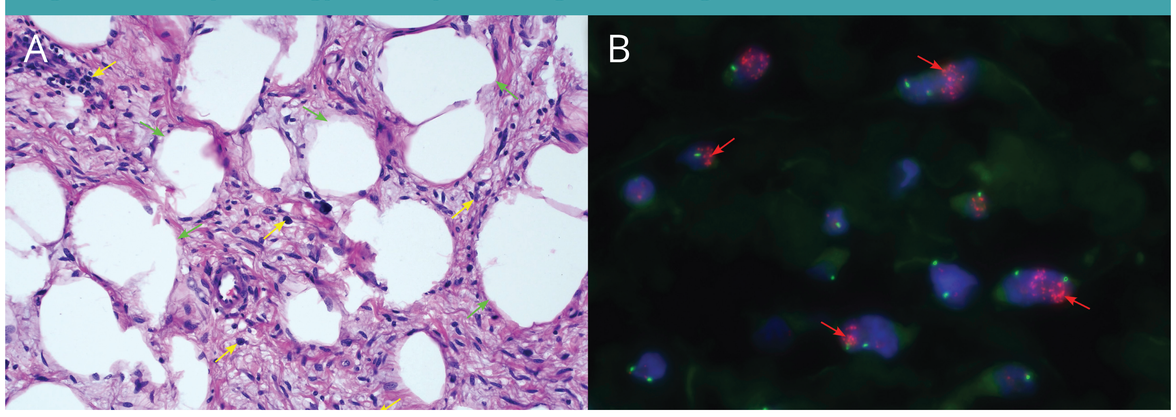
Resected Specimen (~17cm)



A: One surface

B: Opposite surface

Figure 3: Histopathology and Key Pathological Findings



A – H&E: Mature adipose tissue with scattered atypical hyperchromatic stromal cells and lipoblasts.

B – FISH: MDM2 amplification demonstrated by amplified MDM2 signal clusters.

Main findings:
- Dedifferentiated liposarcoma with low-grade dedifferentiation – FNCLCC grade 2.
- Resection margin involved.
- Tumour staged pT3 under AJCC8 head-and-neck soft-tissue sarcoma criteria.
- FISH demonstrated MDM2 amplification: mean MDM2 copy number 15.0 per nucleus, with an MDM2:D12Z3 ratio of 7.6.

Outcome

- Second-look endoscopy at ~3 weeks showed no residual tumour; FDG-PET/CT and cervical lymph node biopsy were negative.
- At sarcoma MDT, wider resection was felt likely to require pharyngectomy or laryngopharyngectomy; radiotherapy was not recommended.
- Surveillance was chosen with regular nasendoscopy and interval MRI.
- At >6 months, the patient remained asymptomatic with normal voice and swallowing and no evidence of recurrence.

Key Learning Points

- Hypopharyngeal dedifferentiated liposarcoma is exceptionally rare and may closely mimic a benign fibrovascular polyp.
- The tumour was unusually large, measuring approximately **20cm on imaging and 17cm after resection.**
- Histopathology and **MDM2 amplification** were key to establishing the diagnosis.
- Cricopharyngeal impaction made conventional transoral mobilisation difficult; **laparoscopic graspers provided the reach and purchase required for en bloc transoral extraction.**
- Management of the involved margin required MDT assessment balancing oncological clearance against the morbidity of radical hypopharyngeal surgery.
- **Prolonged surveillance is important** because local recurrence may occur late.

Take-home Message

Hypopharyngeal liposarcoma can closely mimic a benign fibrovascular polyp; histopathology and MDM2 testing are essential for establishing the diagnosis.

References
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Full Case Report
Scan the QR code to view the full case report when available.

Acknowledgement
We thank the patient for consenting to share her case for educational purposes.