

TRANSCERVICAL APPROACH TO THE PARAPHARYNGEAL SPACE

Jason YK Chan

The logo for CU Medicine Hong Kong is centered on the page. It features the letters 'CU' in a large, bold, sans-serif font. Below 'CU' is the word 'Medicine' in a smaller, bold, sans-serif font. At the bottom of the logo is 'HONG KONG' in an even smaller, all-caps, sans-serif font. The entire logo is rendered in a light beige color, matching the background.

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TRANSCERVICAL APPROACH TO THE PARAPHARYNGEAL SPACE

STEP 1 INCISION

Access to the parapharyngeal space is gained via an upper neck incision at the level of the hyoid bone.

Subplatysmal flaps may be raised or a subcapsular dissection is performed to raise the capsule of the submandibular gland (SMG) together with the skin flap to protect the marginal mandibular nerve.

Anterior border of SCM, the SMG and digastric muscle are identified.

STEP 2 MOBILIZE THE SUBMANDIBULAR GLAND

The facial artery is identified postero-inferior to the gland where it emerges medial to the posterior belly of digastric. The facial artery is then ligated and divided superior to the posterior belly of digastric.

The SMG is mobilised with gentle finger dissection in a posterior-to-anterior direction taking care to leave the thin fascial layer over the ranine veins and the hypoglossal nerve intact. **Figure 1**

STEP 3 ENTER THE PARAPHARYNGEAL SPACE (PPS)

By retracting the posterior belly of digastric posteriorly, the mandible superiorly and the submandibular gland anteriorly, the surgeon can pass a finger/instrument directly into the prestyloid PPS. The access can further be improved by dividing the stylo-mandibular ligament. **Figures 2, 3** The positive identification of hypoglossal nerve, vagus nerve, carotid artery and internal jugular vein before dissecting the tumour will ensure protection of these structures.

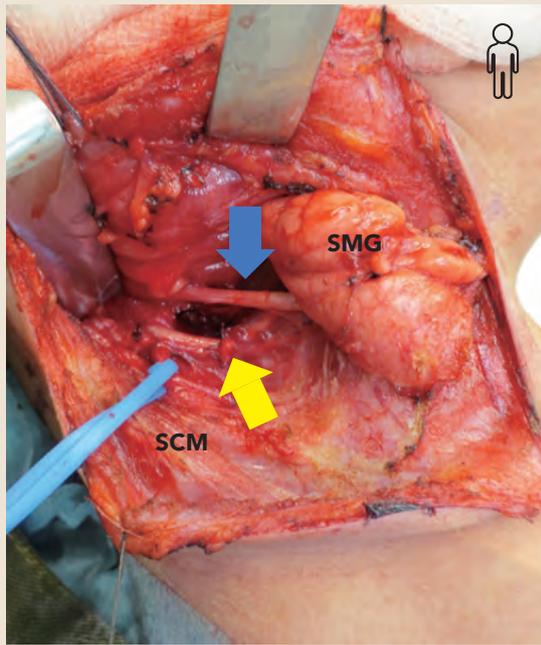


Figure 1

Submandibular gland (SMG) mobilized anteriorly to expose the digastric tendon (blue arrow) and hypoglossal nerve (yellow arrow)

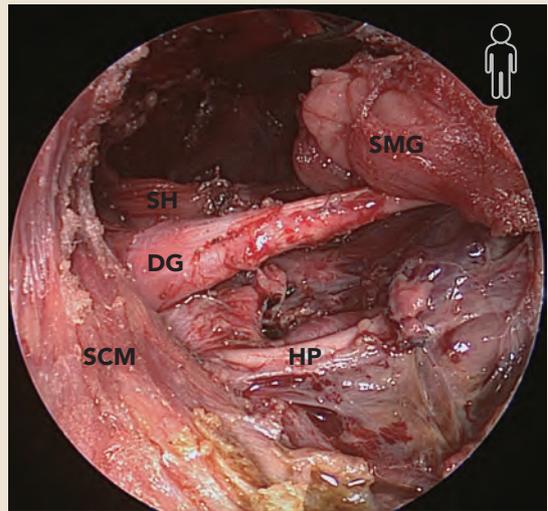


Figure 3

Endoscopic view of PPS after removal of tumour **DG**–Digastric muscle **SH**–Stylohyoid muscle **HP**–Hypoglossal nerve **SCM**–sternocleidomastoid muscle **SMG**–Submandibular gland

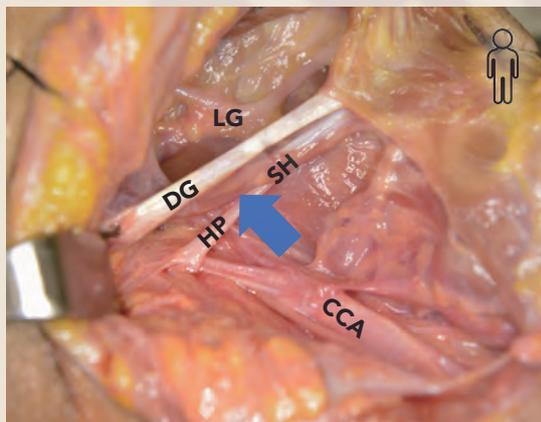


Figure 2

Entrance to the PPS (blue arrow) **LG**–lingual nerve **DG**–Digastric muscle **SH**–Stylohyoid muscle **HP**–Hypoglossal nerve **CCA**–common carotid artery

KEY POINTS

1. Neck incision adequately below the border of the mandible.
2. Subcapsular dissection over the submandibular gland to protect the marginal mandibular nerve.
3. Full length of the posterior belly of digastric and the anterior border of SCM skeletonized.
4. Facial artery ligated as it emerges deep to the posterior belly of the digastric muscle.
5. Submandibular gland reflected anteriorly.
6. The stylo-mandibular ligament divided.
7. Retract mandible, posterior belly of digastric and submandibular gland to facilitate access to PPS.
8. Identify hypoglossal nerve, vagus nerve, carotid artery and internal jugular vein before tumour dissection.
9. Access the prestyloid parapharyngeal space.

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