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Evolution of Salvage Nasopharyngectomy for Nasopharyngeal Cancer

Nasopharyngeal carcinoma is common in Southern part of China, including Hong Kong. Up to 30% of patients may develop tumour recurrence after the radiotherapy. Surgery remains one of the most popular choice of treatment for recurrent nasopharyngeal carcinoma.

Traditionally, the maxillary swing approach offers a wide exposure for nasopharyngectomy. Studies showed that the status of the resection margins after nasopharyngectomy is the most important independent prognostic factor that determine the surgical outcome. The internal carotid artery is one of the most important obstacle to achieve clear margins, particularly for locally advanced tumours. In patients with encasement of the internal carotid artery, the tumour can be resected en-bloc with the artery after securing the cerebral perfusion with a high-flow, extracranial – intracranial vascular bypass. The tumour is then resection with a cranio-facial approach, for tumours that invaded the skull base. On the other hand, for early recurrent tumours, nasopharyngectomy can be performed using the minimally invasive approach. This includes the endoscopic endonasal approach for small mucosal tumours, and the transpterygoid approach for tumours that invaded the parapharyngeal space. Nowadays, 3D endoscopic system provides a high-definition, 3D images that a superior depth perception during surgery at the skull base, increasing the precision of tumour resection and minimizing the chance of inadvertent injury to important structures such as the internal carotid artery and the dura. Transoral robotic approach is another minimally invasive surgery that allows the resection of the recurrent tumour in the nasopharynx without the need for incisions on the face. The tumour is visualized clearly via the 3D high definition camera system and the tumour is resected using robotic instruments that are small with flexible endowrists that allows surgery to be performed in such a small area with outstanding dexterity.

In conclusion, salvage nasopharyngectomy is the treatment of choice for recurrent nasopharyngeal carcinoma. The treatment protocol is personalized according to the extent of disease. Endoscopic or robotic assisted nasopharyngectomy is suitable for early recurrent tumours, while the traditional open approach is reserved for locally advanced cancer.

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鼻咽癌抢救性鼻咽切除术的变革

鼻咽癌在华南地区（包括香港）十分常见。 多达 30% 的患者在接受放射治疗后肿瘤可能复发。手术仍是治疗复发鼻咽癌最常用的方法之一。

傳統上，上頜外旋入路可為鼻咽切除術提供較廣闊的視野。研究显示，鼻咽切除术后切除边缘的状况是决定手术结果的最重要的独立预后因素。颈内动脉是实现边缘清晰的最重要障碍之一，特别是对局部晚期肿瘤而言。对于颈内动脉被包裹的患者，在使用高流量的颅外-颅内血管旁路确保脑灌注后，可将肿瘤与颈内动脉一并切除。对于侵犯颅底的肿瘤，可采用颅面入路切除肿瘤。另一方面，对于早期复发性肿瘤，可采用微创方法进行鼻咽切除术。这包括采用内窥镜鼻内入路法治疗小的粘膜肿瘤，以及采用翼突入路法治疗侵犯咽旁间隙的肿瘤。如今，3D内窥镜系统可提供高清晰度的三维图像，在颅底进行手术时可获得极佳的深度感知，从而提高肿瘤切除的精确度，并最大限度地减少误伤颈内动脉和硬脑膜等重要结构的几率。经口机器人方法是另一种微创手术，可以切除鼻咽部的复发性肿瘤，而无需行面部切口。通过三维高清摄像系统可以清楚地看到肿瘤，然后使用机器人器械切除肿瘤，这些器械体积小，带有灵活的内窥镜，可以在小的范围内以出色的灵活性进行手术。

总之，挽救性鼻咽切除术是复发性鼻咽癌的首选治疗方法。治疗方案应根据疾病的程度进行个性化设计。内窥镜或机器人辅助鼻咽切除术适用于早期复发肿瘤，而传统的开放式方法则适用于局部晚期癌症。