

Imaging of the post-treatment neck

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Dr. Jennifer Gillespie

Jennifer Gillespie is a full time Radiologist at the Royal Brisbane and Women's Hospital (RBWH) Brisbane. She has a special interest in Head and Neck and Skull Base imaging, having completed a fellowship in MRI in 2011 at the Princess Alexandra Hospital with her mentor Dr Mitesh Gandhi. Since this time she has been heavily involved in teaching Radiology Trainees and is the Director of Training for the RBWH.



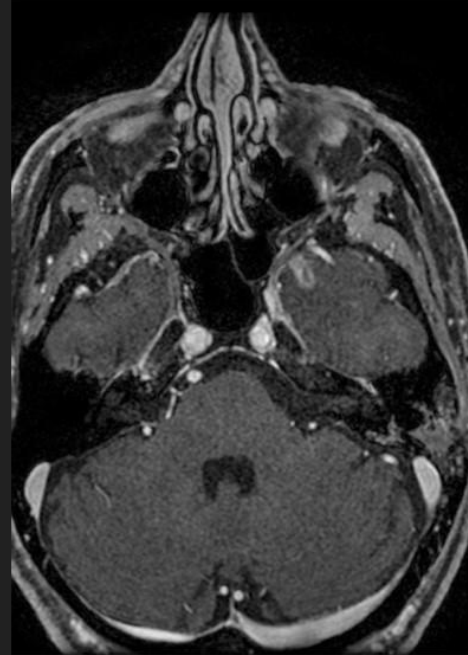
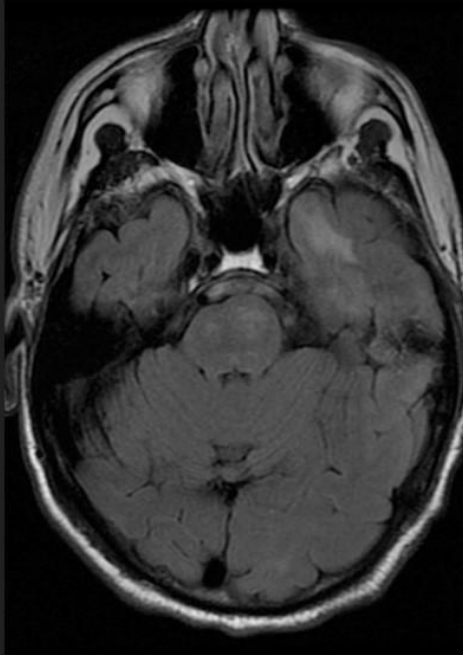
She is a member of the Head and Neck Cancer multi-disciplinary meeting and Skull Base MDT at the RBWH. She is the Head and Neck council member for the Australian and New Zealand Society of Neuroradiology (ANZSNR) and has recently been a co-convenor for their Annual Scientific Meeting in 2020. Jennifer is a regular lecturer at national meetings in Australia and was recently honoured to be an invited speaker at RSNA in 2019.

Learning Objectives

1. Understand the different types of neck dissection
2. Recognise the expected imaging appearance following radiation therapy
3. Be aware of the early and late complications of both surgery and radiation therapy within the neck
4. Recognise the signs of local tumour recurrence.

Teaser

2 YEARS POST SURGERY AND XRT FOR PAROTID SCC
IS THERE EVIDENCE OF RECURRENCE?



Test Your Knowledge

1. As well as lymph nodes, which of these structures may be removed in a selective neck dissection?
 - a. Sternocleidomastoid muscle
 - b. Internal jugular vein
 - c. Accessory nerve
 - d. Submandibular gland
 - e. A or C
2. Which of these is NOT an expected finding following radiation therapy?
 - a. Thickening of the platysma muscle
 - b. Fluid tracking along the fascial planes
 - c. Nodular enhancement of the mucosa
 - d. Thickening of the epiglottis
 - e. Increased enhancement of the salivary glands

3. Which of these features is more suggestive of chondronecrosis than tumour recurrence?
 - a. Focal mucosal enhancement
 - b. Gas adjacent to cartilage
 - c. Cartilage destruction
 - d. Mucosal ulceration
 - e. Oedema within the paraglottic space

4. In patients following treatment for head and neck SCC, during what time period do most recurrences occur?
 - a. Within the first month
 - b. Within the first three months
 - c. Within the first two years
 - d. Between two and five years
 - e. After 5 years

5. Which of these statements about pedicle flaps is correct?
 - a. They do not have their own blood supply
 - b. They must be harvested from a site adjacent to the surgical defect
 - c. They require microvascular anastomosis at the recipient site
 - d. A radial forearm flap is a common example
 - e. The blood supply remains attached to the original donor site