

# **A bilateral radical dissection of the neck – a patient with metastatic salivary adenocarcinoma**

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## **Introduction**

The purpose of radical neck dissection is to remove lymph nodes and associated structures in the head and neck that are likely to be malignant. Variations on neck dissections exist, depending on the extent of the cancer. A radical neck dissection removes the most tissue. It is performed when the cancer has spread widely in the neck. A modified neck dissection removes less tissue and a selective neck dissection even less. The most poorly vascularised area in the neck is in the mid part over the common carotid artery. Therefore it

is best to avoid 3-point junctions and vertical incisions in the centre of the neck [1].

## **Case report**

A 69 year old patient who complained of bilateral neck lumps for two months, was found to have undergone right-sided submandibular sialadenectomy one year ago for adenocarcinoma of the gland. She had not come back for follow up since then (Fig 1).



FNAC of the neck lumps revealed malignant cells and a two-stage bilateral radical neck dissection was planned.

First, the patient was nutritionally optimised with haematinics, vitamins and zinc, and her low serum protein level was corrected with plasma infusions since these factors were known to adversely affect the wound healing.

Although it is advised to avoid 3-point junctions in the centre of the neck, it was decided to use one as it gives easy access to the underlying structures and easier to extend if the need arises. The right-sided dissection was done first. The enlarged lymph nodes with surrounding fatty tissues, the sternocleidomastoid muscle and the internal jugular vein were dissected out *en-bloc*. Though immediately after closure of the wound, a haematoma developed due to oozing from a damaged right thyroid lobe, no further complications occurred (Fig 2).



Figure 2

The drain was removed after 3 days and the sutures were removed after 7 days while the patient's nutritional factors were optimised carefully.

Two weeks after the first operation, a modified radical neck dissection was performed on the left side.

A 3-point skin incision similar to previous one was used. The lymph nodes and the surrounding fatty tissue, the sternocleidomastoid and the left submandibular salivary gland was removed *en-bloc* leaving the internal jugular vein intact. Dexamethasone 4 mg 8 hourly was given IV for 4 days to reduce cerebral oedema that could result from a compromised venous drainage. Drain was removed after 4 days and the sutures were removed after 7 days.

Both left and right specimens revealed extensive nodal and extra-nodal metastases of adenocarcinoma possibly from the previously excised right submandibular salivary adenocarcinoma.

### Discussion

The mortality rate for a unilateral radical neck dissection can be as high as 14% [2]. However, a carefully planned bilateral block dissection of the neck, after allowing sufficient time for the adjustment for unilateral venous drainage and proper nutritional management, can yield a positive outcome. Even in a 69 year old patient a 3-point junction in the centre of the lateral side of the neck can heal satisfactorily if the important contributory factors for wound healing such as haemoglobin, serum proteins, vitamins and trace metals can be optimised.

### References

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2. Fleming Fallon L (Jr), Radical Neck Dissection In: Encyclopaedia Surgery (online) available <http://www.surgeryencyclopedia.com/Pa-St/Radical-Neck-Dissection.html> accessed on 12 July 2006.