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Case Report

Surgical Approach to the Reconstruction of Soft Tissue Defects After Extensive Neck Resection-Case Report

Vesna Š.Rakić[1*], Dragana Petrovic Popović[2], Goran Zorić[3]

[1]Practice "Estetika Rakic" Belgrade, Serbia.

[2]Clinic for Burns, Plastic and Reconstructive Surgery, Clinical Center of Serbia, Belgrade, Serbia.

[3]Center for endocrine surgery Clinical Center of Serbia, Belgrade, Serbia.

***Corresponding author:** Vesna Š.Rakić, Practice "Estetika Rakic", Ustanicka Street No. 10/2, Belgrade, Serbia, Tele: +381 11 2432 762 Email: rakicdrvesna@gmail.com

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Introduction

The most common cause of neck soft tissue defects is surgical removal of tumors, but such defects may also be caused by injuries [1]. The incidence of head and neck cancer (upper aero digestive region) is increasing [2]. Although screening is widely present [3], these tumors are frequently detected in patients at an advanced stage of the disease when local spread and metastasis of such tumors are diagnosed [3]. In terms of functionality, the anterior neck zone is significant since functionally significant organs are located within this zone, and it represents the continuation of the zone with large blood vessels. In terms of aesthetics, the anterior neck zone is usually not covered by any piece of clothing and is exposed to view in social contacts, thus contributing to the disfigurement of the diseased or surgically treated patient.

In such patients, free flap is considered as reliable and useful for covering complex defects, thus becoming the flap of choice [4]. We should not forget that in some situations, a good result can be achieved by using a local flap. Only a few papers on the topic of neck soft tissue defects and their reconstruction using local flaps have been published so far [5].

Keywords: Neck, soft tisue defect, local flap.

Case Report

A female patient, 79 years old (Figure 1), diagnosed with thyroid papillary carcinoma. Also suffering from congestive heart failure. Made an appointment with the doctor only after having a suffocating sensation due to which an urgent tracheotomy was performed followed by total thyroidectomy with functional. The surgical procedure caused skin and soft tissue defects in the anterior neck zone (23cm x 14cm), located particularly on the left side of the neck, main blood vessels and the area under the tracheostomy, neck dissection jugular fossa and the proximal part of the sternum. The use of fasciocutaneous flap, size 15 x 20 cm, was foreseen for defect reconstruction. This is a random flap, where the flap base-length ratio is 1:1.3, which is considered to be a quite reliable and safe ratio for a random flap. This kind of defect reconstruction was adequate for this particular patient. The flap was well-adapted, completely vital (Figure 2). The overall health condition of the patient was good. She was discharged from the hospital four days after the surgical procedure.

Figure 1: Neck dissection

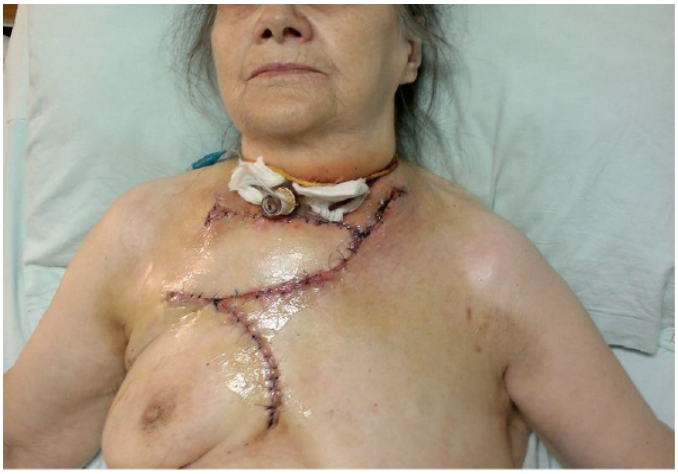

Figure 2: Neck dissection and defect reconstruction.

Discussion:

Local fasciocutaneous flap may be a very good solution to cover neck skin and soft tissue defects, especially in patients who are diagnosed with advanced stages of the disease, whose malignant disease has progressed, who require palliative surgical treatment or who are suffering from accompanying chronic diseases. Of course, the implementation of such a large fasciocutaneous flap surrounding the defect is possible only if the patient has excess skin, if the patient is more advanced in years or has experienced a significant weight-loss. Our patient is advanced in years. Therefore, we had excess skin surrounding the defect. What are other advantages of this type of reconstruction? Performing such a surgical procedure requires a relatively short period of time, about an hour. Such a surgical intervention represents a smaller operating risk than a larger-scale surgical intervention (reconstruction using free flap). In terms of the donor site morbidity, picture 2 shows that shifting transposition flap and its placement into the defect resulted in lifting the right breast. The patient was informed about the expected results of the surgical procedure and deformity, i.e. breast asymmetry which is inevitable. She gave her full consent to the selection of the treatment.

By this example, we have shown that performing the reconstruction using local tissues gives good results even with wide neck defects, without significant morbidity of the donor site, without complications impairing short recovery of the patient. In cancer patients this type of reconstruction is adequate because the surgical part of the treatment requires just a few days to be completed, after which the patient may be referred to the oncological treatment.

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