Transverse Cervical Artery Perforator Flap- A Case Series and Video Point of Technique from the West of Ireland

Susan McCrossan[1], Shane Cullen[1], Patrick James O'Donoghue, Aileen Egan, Aisling Bell, Orla Young[2], John Laing, Jack Kelly[1].

1. Department of Plastics and Reconstructive Surgery, 2. Department of Otolaryngology, Galway University Hospital, Galway

Background:
Head and neck defects secondary to cancer or trauma are cosmetically sensitive areas and the most difficult areas to cover up from public view, therefore reconstructions to this area requires high quality tissue, matching both the colour, contour and texture of the surrounding structures.

Aims & Objectives:
Our aim is to highlight the versatility of the transverse cervical artery (TCA) flap, especially for the use of patients who are not suitable candidates for microsurgical reconstruction. We add a video point of technique to show how easy this flap is to raise.
Patients / Materials & Methods: A retrospective review was carried out between the years 2019-2023 of all patients undergoing TCA flap reconstruction. Medical charts were reviewed including patient demographics, reason for surgery, bed days and long term followup. A recording of a TCA flap reconstruction was undertaken from start to finish and edited to show how to plan, raise and inset the TCA flap.

Results:
Over three years 14 patients underwent fifteen TCA flap reconstructions for head and neck defects. All patients were male with an average age of 71 years, range (42-90 years), all patients bar one underwent radiotherapy. Aetiology of the defects included melanoma (n=2), squamous cell carcinoma (n=8), basal cell carcinoma (n=1) and pharyngeal-cutaneous fistulas (n=2). The average post operative stay in hospital was 8.9 bed days. Complications included haematoma in one patient requiring return to theatre. Range of follow up was from 3 months to 3.5 years with long term donor sites being of good quality and no radiotherapy break down around the flap.

Discussion & Conclusion:
Local flap reconstructions to the head and neck are used for patients not suitable for free tissue transfer, or even for post free flap salvage wound rescue operations. These frequently include pectoralis major and latissimus dorsi, however both are bulky and the donor site is relatively large. We are in favour of a fasciocutaneous flap, based on a perforator of the transverse cervical artery (TCA), and as Gillies principle states, those flaps in closer proximity to the recipient defect have a better skin colour match. We hope our case series and point of technique video highlight to the plastic surgery community a potential flap to use in the reconstruction of head and neck defects.