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Efficacy of Antero Lateral Thigh Flap in Head and Neck Reconstruction

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ABSTRACT

INTRODUCTION

Head and neck defects commonly from excision of cancer, require complex reconstruction.

Our reconstructive goals are aimed at achieving safety, form and function. Escalation to the highest option on the ladder of reconstruction is obligatory. With the discovery of free anterolateral thigh flaps our reconstructive goals could be attained. Antero lateral thigh flap offered more to the reconstructive options than what it was initially described as. Antero lateral thigh flap not only gained popularity but also became the workhorse flap in head and neck reconstruction. Research has been done all over the world on the application of Antero lateral thigh flap but nothing is reported from South Africa. The aim of the study was to determine the efficacy of antero lateral thigh flap in head and neck reconstruction in plastic surgery department at Charlotte Maxeke Johannesburg Academic Hospital.

Methodology

A retrospective medical record review was conducted at Charlotte Maxeke Johannesburg Academic Hospital which included all adult patients reconstructed with antero lateral thigh flap. Theatre and ward registration were used to identify the patients during the five-year period from 01 January 2014 – 31 December 2018. The number of patients with head and neck cancer during this period totalled 80, of which 33 met the study inclusion criteria: Adults with head and neck cancer reconstructed with antero lateral thigh flap.

Main Outcome Measures – Flap survival, recipient and donor complications and length of hospital stay.

Results

The study comprised 33 patients who had undergone a wide local excision, with/without neck dissection and reconstructed with antero lateral thigh flap. The mean age of the patients was 55.89 +/- 12.77 years. Most participants were male (n=24: 72.73%), female (n=9:27.27%), smokers (n=18: 56.25%) and 25 (78.13%) had SCC diagnosis, there were 15 (44.12%) patients with comorbidities and the average duration of the operation was 10.12+/- 2.65 hours. The most frequent anatomical site was the oral cavity (n=15: 50%). Maximum ICU stay was 2 days (n=31.93: 94%), The median hospital stay was 38 days with an interquartile range of 34-44 days. Post operation complications were experienced by 7 patients – recipient site complication (n=3,9%) and donor site complication (n=4, 12%), with a total flap survival of 94%.

Conclusion

Our experience has given us the confidence to use this flap in a variety of head and neck defects.

The antero lateral thigh flap is highly versatile, has a high survival rate and a low complication rate. Antero lateral thigh flap has found a permanent and highly valued place in head and neck reconstruction.