

Reconstruction of buccal-cheek soft tissue defect with free ALT flap– 10 years' experience of VGHTPE

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Introduction:

Head & neck cancers still have high occurrence and mortality rate in Taiwan. Surgery of tumor wide excision is the mainstay of treatments. Reconstruction of soft tissue defects with free ALT flap after tumor extirpation is the important tool to save both the function and appearance. Subjective assessment postoperatively is essential to improve the treatment methods.

The goal of the study is to evaluate both the surgical and quality outcome of free ALT flap at buccal-cheek soft tissue defect in past 10 years.

Materials and Methods:

We retrospectively collected the data of 173 free ALT flaps performed for 169 patients within a single institution between Jan. 2003 and Sep. 2012. All patients had buccal-cheek soft tissue defects with or without partial bony resection. The surgical outcomes were evaluated including flap successful rate, complication rate and postoperative events. The quality-of-life assessments were evaluated by the University of Washington Quality of Life (UWQoL) and the 14-item Oral Health Impact Profile (OHIP-14).

Results:

Of 169 patients(173 flaps), 162 (95.8 percent) were male patients. Most defects were resulted from wide resection of buccal mucosa squamous cell carcinoma stage III or stage IV. Flap successful rate: 165/173 (95.4%). The most satisfaction domains revealed by UWQoL are pain(88.3), anxiety(76.8) and activity(68.3), while appearance, swallowing and speech are mostly concerned by the patients.

Table 1 Complications

Complication	number
Minor	32
Edge necrosis	7
Wound infection	17
Wound dehiscence	2
Hematoma	4
Seroma	2
Major	24
Partial necrosis	16
Total necrosis	8

Table 2 Postoperative events

Events	number
Orocutaneous fistula	12
Osteoradionecrosis	7
Recurrence	17
Recurrence+ distant metastasis	5
Distant metastasis	22
2 nd primary	3
2 nd primary+ distant metastasis	3
Other tumor (lung SCC)	2
Plate exposure	8
Sialocele	2

Fig.1 UW-QOL scores (Domain Scores)

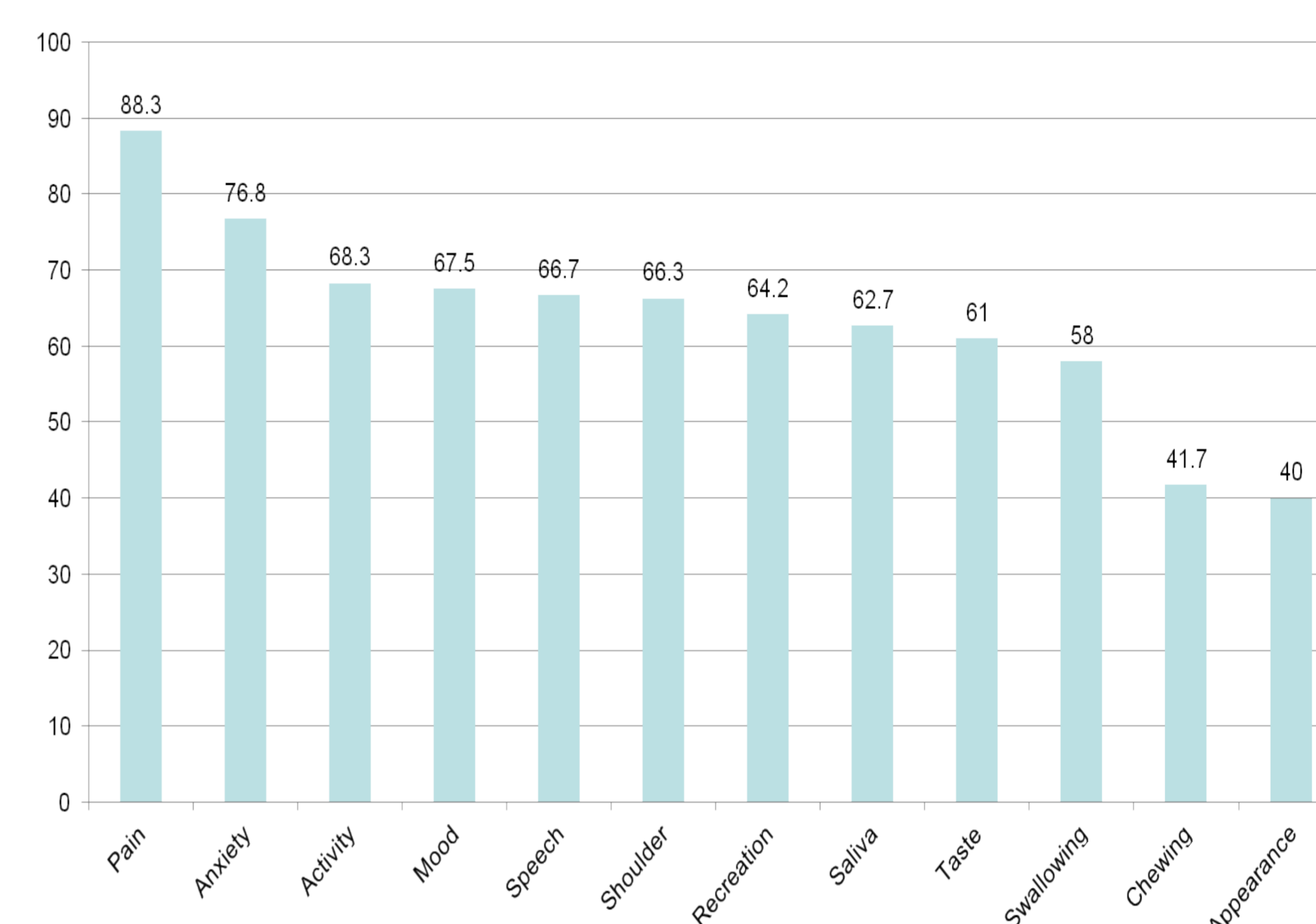


Fig.2 UW-QOL scores (Importance ranking)

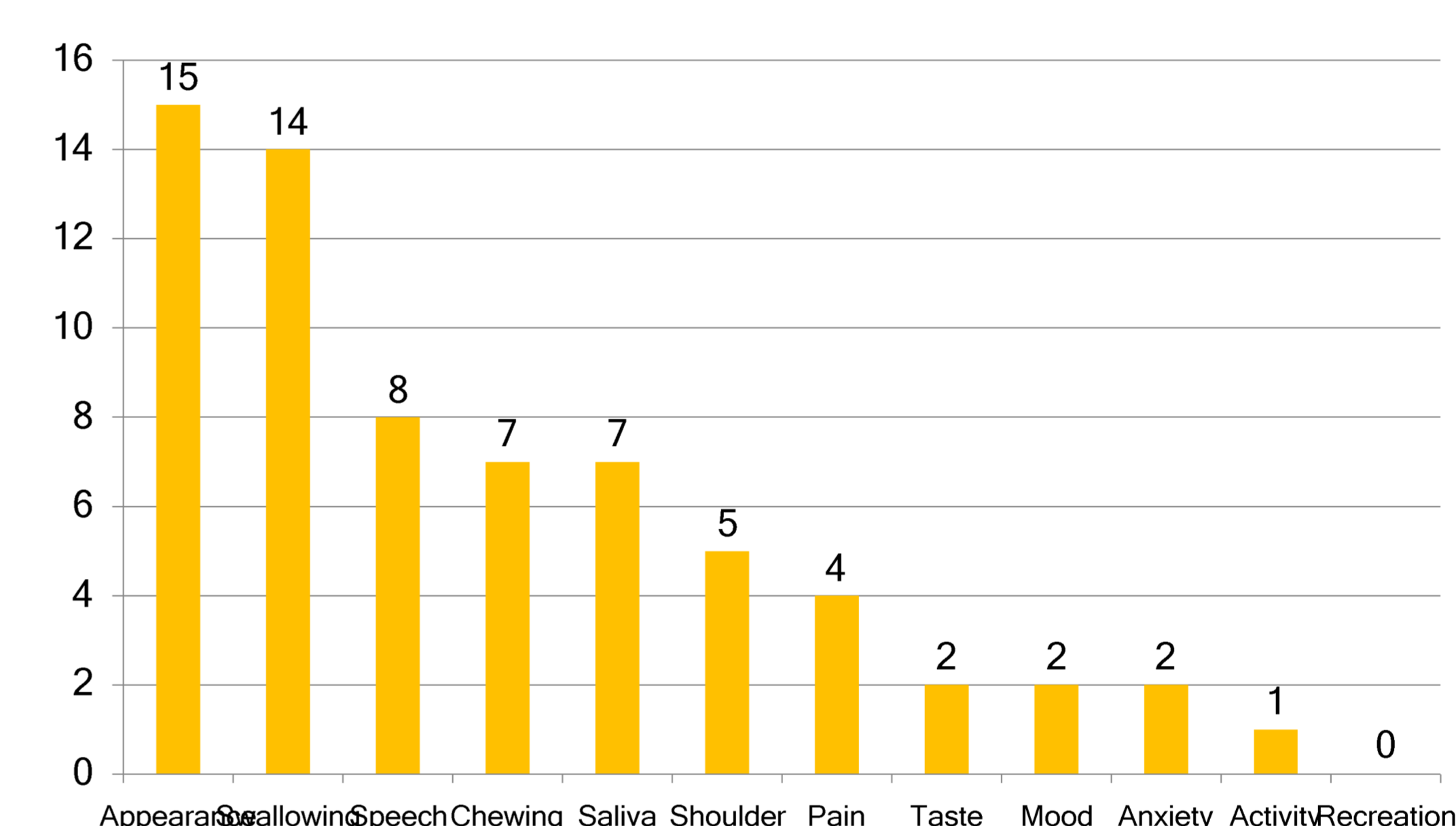
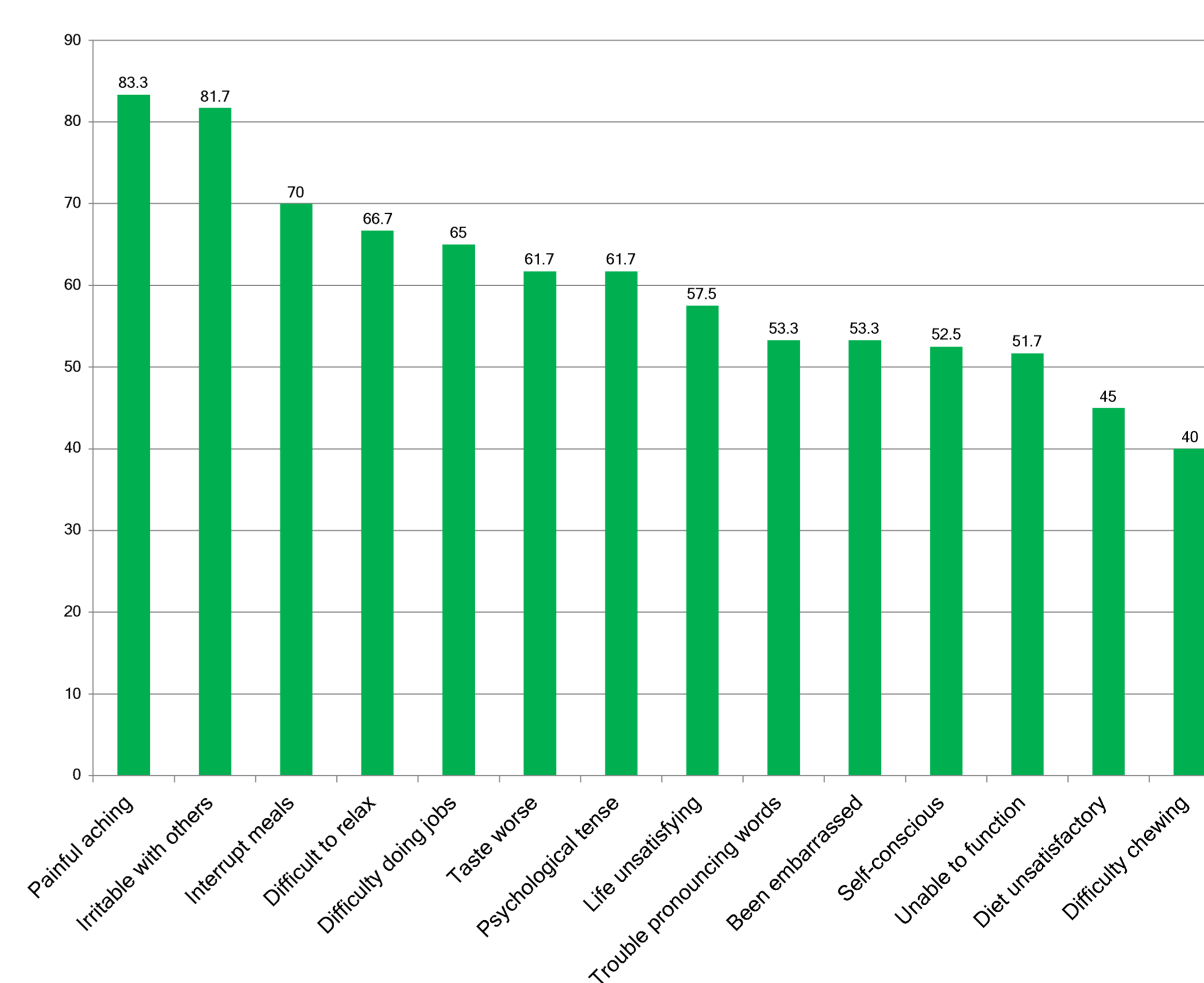


Fig.3 OHIP-14 (Scores)



Conclusion:

Although high successful rate of ALT flap in cheek soft tissue reconstruction, the quality of life was significantly influenced. Pain and mood (anxiety) domains had most satisfaction while appearance and diet (chewing) were the worst score domains.

Appearance, swallowing and speech are the most concerned domains for the patients.

Customized design is important to achieve both aesthetic and functional goals.