



FACE-Q outcomes following free fibular flap reconstruction with Immediate Dental Implant Placement



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Background

- After mandibular resection, dental restoration is an important part of rehabilitation.
- Most centers place implants after at least 6-12 months following oncological treatment.
- Immediate dental implant placement (IDIP) is a novel technique that places endosseous dental implantation at the same time of ablative and reconstructive surgery. .
- IDIP can help speed up the process of rehabilitation and implant failure may be lower than postponed implant placement.
- FACE-Q Head and Neck assesses facial appearance, function, and quality of life

Objectives

To describe short- and long-term patient reported outcome measures (PROMs) in patients undergoing IDIP using the FACE-Q and to compare patients with and without complications.

Methods

Study population:

- patients > 18 years of age
- underwent IDIP between 2010-2021
- With any FACE-Q scores available

FACE-Q:

- **Appearance:** Overall facial appearance
- **Functional:** eating/drinking, oral competence, salivation, smiling, speaking, and swallowing
- **Distress:** eating, drooling, smiling, speaking, appearance, and cancer worry

Results

Demographics	Number (%)
Total patients	70
Short-Term (1-365) FACE-Q	46
- Complication (Yes)	18 (39.1%)
Long-Term (365+) FACE-Q	46
- Complication (No)	23 (50.0%)
Age	61.7±13.3
Gender (Male)	47 (67.1%)
Race	
- White	39 (55.7%)
- Asian	19 (27.1%)
- Black	7 (10.0%)
- Other	5 (7.1%)
Smoking status (Yes)	39 (55.7%)
BMI	27.47±5.4
Staging	
- I	11 (15.7%)
- II	9 (12.9%)
- III	5 (71.4%)
- IV	44 (62.9%)
Chemotherapy	30 (42.9%)
Radiation	51 (72.9%)
Cancer type	
- Squamous cell carcinoma	57 (81.4%)
- Sarcoma	5 (7.1%)
- Other	8 (11.4%)

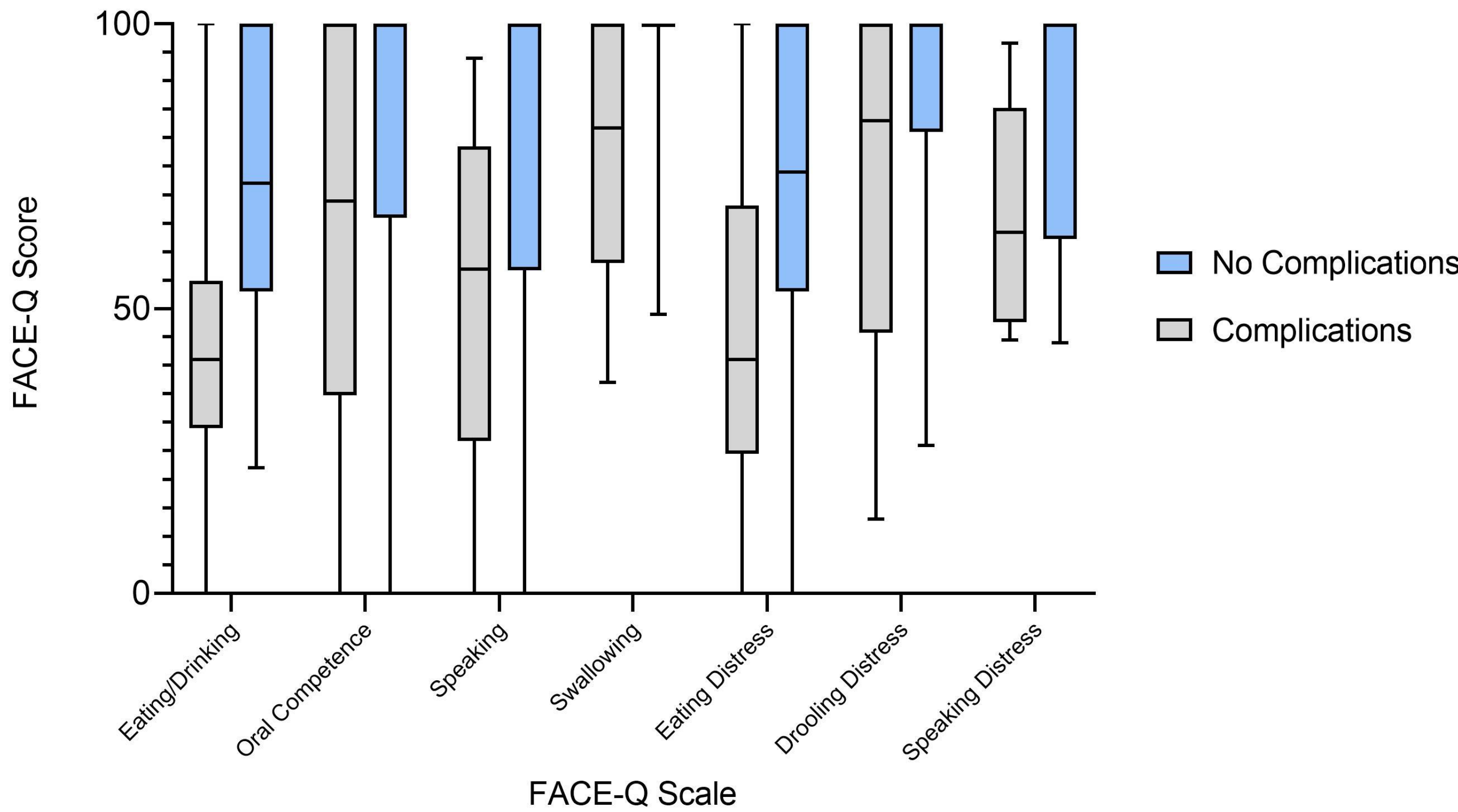
FACE-Q HEAD AND NECK CANCER™ – APPEARANCE DISTRESS

For each statement, circle only one answer. These statements are about how your facial appearance may affect you. In the past week how much do you agree or disagree with each statement:

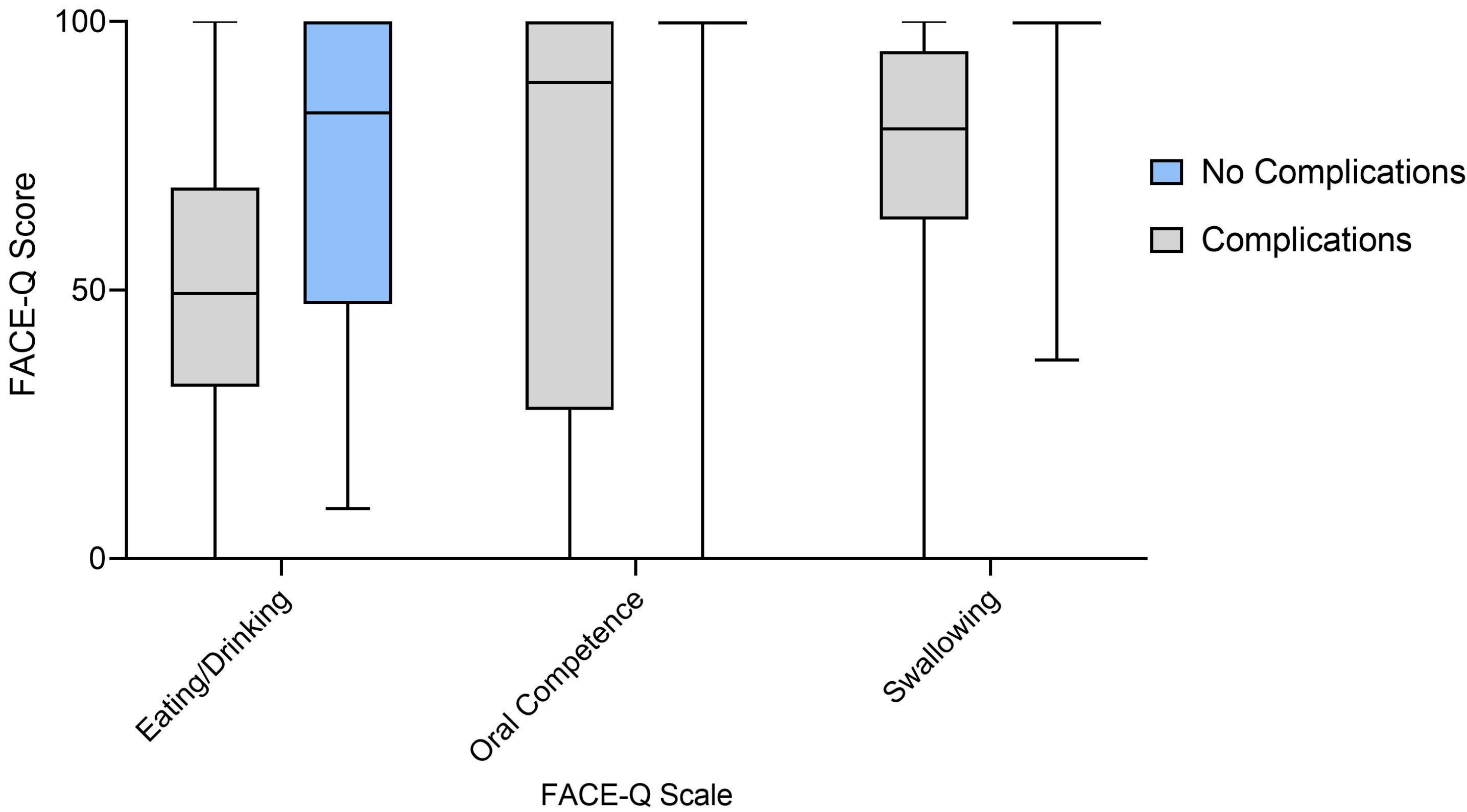
	Definitely Agree	Somewhat Agree	Somewhat Disagree	Definitely Disagree
1. I feel depressed when I look in the mirror.	1	2	3	4
2. I feel insecure because of how my face looks.	1	2	3	4
3. I feel anxious when people look at my face.	1	2	3	4
4. I feel unhappy about how my face looks.	1	2	3	4
5. I worry that my face does not look normal.	1	2	3	4
6. I am self-conscious about how my face looks.	1	2	3	4

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Short-term FACE-Q Scores by Presence of Complications



Long-term FACE-Q Scores by Presence of Complications



Conclusion

- To the best of our knowledge, this is the first study to evaluate PROM in the setting of dental implantation, and more specifically, for IDIP.
- We found that patients who undergo complications have significantly lower function in eating/drinking, oral competence, speaking, and swallowing and experience more distress in eating, drinking, and speaking short-term.
- Long-term, those who have complications experience significantly worse eating/drinking, oral competence, and swallowing function, but do not report significantly worse distress.
- Our study shows the ability to measure PROM for head and neck cancer patients undergoing dental implantation. We highly encourage other institutions and practices to also administer FACE-Q to assess patient satisfaction and function for head and neck oncological patients.

References

1. Wetzels JGH, Meijer GJ, de Haan AFJ, Merks MAW, Speksnijder CM. Immediate implant placement in edentulous oral cancer patients: a long-term retrospective analysis of 207 patients. Int J Oral Maxillofac Surg. 2021 Nov;50(11):1521-1528. doi: 10.1016/j.ijom.2021.01.015. Epub 2021 Feb 26. PMID: 33642151.
2. Albornoz CR, Pusic AL, Reavey P, Scott AM, Klassen AF, Cano SJ, Cordeiro PG, Matros E. Measuring health-related quality of life outcomes in head and neck reconstruction. Clin Plast Surg. 2013 Apr;40(2):341-9. doi: 10.1016/j.cps.2012.10.008. Epub 2012 Nov 26. PMID: 23506775.
3. Anolik RA, Nelson JA, Rosen EB, Disa J, Matros E, Allen RJ Jr. Immediate Dental Implant Placement in the Oncologic Setting: A Conceptual Framework. Plast Reconstr Surg Glob Open. 2021 Sep 17;9(9):e3671. doi: 10.1097/GOX.0000000000003671. PMID: 34548994; PMCID: PMC8447991.