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**EVALUATION QUALITY OF LIFE AFTER APICOECTOMY  
USING TWO DEFFERENT FLAP DESIGN**

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**INTRODUCTION:**

Apicectomy has become an integral part of a comprehensive dental treatment. Generally, endodontic surgery is required to retain teeth that have persistent periradicular pathosis after conservative root canal treatment. The primary objective of apicectomy is to eradicate the etiological agents of periapical pathoses and to restore the periodontium to a state of biologic and functional health.

**AIM:**

The aim of this study was to evaluate patient experience of quality of life following apicoectomy using two different flap design gingival (envelope) and semilunar.

**MATERIAL and METHOD:**

The study consisted of 60 patients referred for oral surgical treatment - apicoectomy with periapical osteotomy on frontal teeth. One operator were carried out the treatments. All patients were given a questionnaire with 15 questions to evaluate their quality of life for 7 days after the oral surgery interventions. The patient's answers were referred as: not at all -1; very little - 2; some- 3; quite a bit - 4; very much-5). An equal number of patients were assigned to each group. Group 1 was treated by apicoectomy with gingival flap design and Group 2 was treated by apicoectomy with semilunar flap design. The statistical evaluation included descriptive and analytical methods.

**RESULTS:**

The average time needed for completion the surgical procedure was approximately 45 minutes. The results showed that patients in Group 1 reported significantly more pain and took significantly more analgesics on day 3. On days 1 and 2, patients of the Group 2 reported significantly more difficulty in mouth opening, mastication, and the ability to speak.

**CONCLUSION:** High incidence of symptoms were reported by the patients in both groups. There were no significant differences found in the distribution of patients according to age, gender, periradicular diagnosis, and site of operation between the two groups. The apicoectomy procedure using semilunar flap design provided significantly less postoperative pain, but more difficulties in mouth opening, mastication, and the ability to speak immediately postoperatively.

Table I. Quality of life questionnaire

Day 1 - Not at all (1) Very little (2) Some (3) Quite a bit (4) Very much (5)
1. Do you experience any difficulties with mouth opening?
2. Do you experience any difficulties with chewing
3. Are there any foods that you can't eat now?
4. Do you experience any difficulties with speaking?
5. Do you experience any difficulties with sleeping?
6. Have you missed your work/school?
7. Do you experience any difficulties with your daily activities?
8. Do you have swelling?
9. Do you have bruises?
10. Do you have bleeding?
11. Do you feel nausea?
12. Do you feel a bad taste or breath?
13. What is the worst pain that you felt?
14. What is the average degree of pain that you felt?
15. Did you take any pain-killers today?

Table IIa. Patients' experience of quality of life for both groups (1: not at all—5: very much).

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Mouth opening G1	2.9(61.3)	2.7(61.1)	2.3(61.1)	2.1(61.1)	1.7(60.8)	1.6(60.7)	1.4(60.7)
Mouth opening G2	3.3(61.3)	3.3(61.1)	2.5(61.0)	2.1(61.0)	1.7(60.7)	1.4(60.9)	1.3(60.6)
Mastication G1	3.7(61.2)	3.1(61.2)	2.6(61.2)	2.1(61.0)	1.7(60.9)	1.6(60.8)	1.4(60.7)
Mastication G2	4.2(61.1)	3.3(61.2)	2.5(61.2)	2.1(61.0)	1.6(60.9)	1.5(60.1)	1.4(60.8)
Eating satisfaction G1	3.4(61.4)	2.8(61.2)	2.3(61.1)	2.0(60.9)	1.6(60.7)	1.5(60.5)	1.4(60.5)
Eating satisfaction G2	3.7(61.3)	3.1(61.4)	2.6(61.3)	1.9(61.1)	1.6(60.9)	1.4(60.9)	1.3(60.7)
Speech G1	2.7(61.4)	2.2(61.1)	1.8(60.9)	1.7(60.8)	1.4(60.6)	1.3(60.5)	1.1(60.4)
Speech G2	2.9(61.0)	2.6(61.1)	2.2(61.1)	1.5(60.7)	1.4(60.7)	1.3(60.6)	1.2(60.5)
Sleeping G1	2.2(61.4)	2.0(61.1)	1.8(61.1)	1.7(61.1)	1.4(60.6)	1.3(60.6)	1.0(60.0)
Sleeping G2	2.3(61.0)	1.9(61.2)	1.6(61.1)	1.5(60.8)	1.1(60.3)	1.1(60.3)	1.0(60.0)
Work G1	3.6(61.5)	3.5(61.6)	2.8(61.6)	1.8(61.4)	1.5(61.0)	1.3(60.8)	1.1(60.2)
Work G2	3.8(61.7)	3.6(61.7)	3.1(61.7)	1.7(61.2)	1.3(60.9)	1.3(60.8)	1.1(60.5)
Daily routine G1	3.5(61.2)	2.9(61.3)	2.5(61.1)	2.2(61.1)	1.8(61.0)	1.4(60.6)	1.3(60.5)
Daily routine G2	3.2(61.1)	2.8(61.2)	2.4(61.3)	1.9(61.2)	1.5(61.0)	1.2(60.5)	1.1(60.4)

Table IIb. Patients' experience of quality of life for both groups (1: not at all—5: very much).

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Swelling G1	3.6(61.1)	3.9(60.9)	3.4(60.9)	2.9(61.0)	2.3(60.8)	1.8(60.8)	1.3(60.6)
Swelling G2	3.4(61.2)	4.1(61.1)	3.6(61.3)	2.7(61.2)	2.0(60.9)	1.5(60.8)	1.2(60.4)
Ecchymosis G1	1.4(60.8)	1.3(60.6)	1.5(60.9)	1.5(61.0)	1.3(60.8)	1.1(60.3)	1.1(60.2)
Ecchymosis G2	1.5(61.0)	1.6(61.2)	1.5(61.1)	1.5(61.1)	1.3(60.8)	1.2(60.6)	1.1(60.3)
Bleeding G1	2.6(61.3)	1.6(61.0)	1.3(60.6)	1.2(60.5)	1.2(60.5)	1.2(60.4)	1.1(60.3)
Bleeding G2	2.4(61.3)	1.7(61.0)	1.4(60.7)	1.2(60.6)	1.2(60.6)	1.1(60.5)	1.1(60.4)
Nausea G1	1.5(61.0)	1.5(60.9)	1.2(60.5)	1.3(60.8)	1.1(60.6)	1.1(60.3)	1.1(60.2)
Nausea G2	1.5(60.9)	1.6(61.1)	1.5(60.8)	1.1(60.3)	1.1(60.2)	1.0(60.0)	1.0(60.2)
Bad breath G1	2.7(61.5)	2.5(61.2)	2.5(61.2)	1.9(61.0)	1.8(61.0)	1.6(60.9)	1.4(60.7)
Bad breath G2	3.1(61.3)	2.6(61.3)	2.4(61.1)	2.2(61.1)	1.7(60.8)	1.4(60.7)	1.4(60.7)
Maximal pain G1	3.5(60.9)	3.0(61.1)	2.7(61.1)	2.4(61.0)	2.1(61.0)	1.9(61.0)	1.6(60.8)
Maximal pain G2	3.3(61.2)	2.6(61.1)	2.2(61.0)	1.6(60.9)	1.3(60.6)	1.3(60.5)	1.1(60.3)
Average pain G1	3.1(61.0)	2.8(60.9)	2.5(60.9)	2.2(60.8)	1.9(60.8)	1.9(60.7)	1.6(60.7)
Average pain G2	2.9(61.2)	2.4(61.0)	2.1(61.0)	1.5(60.9)	1.2(60.5)	1.2(60.5)	1.1(60.2)