



QUALITY OF LIFE: BEFORE AND AFTER SURGERY IN OSMF

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ABSTRACT

Aim: The aim of present study is to evaluate quality of life before and after surgical treatment of OSMF

Methodology: The study includes 35 patients from outpatient department. Quality of life was assessed by a self made questionnaire which was asked pre and post operatively 6 months. The data was analysed using SPSS 20.0 version. The responses to various questions were described in percentages.

Results: The participants had pessimistic effect on quality of life before treatment while after surgical treatment and proper exercise for 6 months quality of life is surely improved.

KEYWORDS : OMF, Quality of life, premalignant condition

INTRODUCTION

OSMF is a pre-malignant condition. It causes trismus and progressive inability to eat". The main etiological factor of OSMF is areca nut. Other etiological factors suggested are chilies, lime, tobacco, nutritional deficiencies, immunological disorders, collagen disorders, and genetic predisposition.^{1,2,3} Arecoline, an alkaloid component of areca nut, stimulates fibroblastic proliferation and collagen synthesis and leads to juxtaepithelial hyalinization and secondary muscle involvement which results to trismus.⁴ WHO defines quality of life as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.⁵ Due to reduced mouth opening one's physical, psychological and emotional quotient of quality of life is compromised. Therefore, this study was undertaken to evaluate quality of life through questionnaire in OSMF patients before and 6 months after the surgery.

MATERIAL AND METHODS

It is a comparative study. It included those patients who reported with chief complaints of restricted mouth opening and were screened for clinical diagnosis of OSMF. Patients consent was also taken.

INCLUSION CRITERIA:

1. Clinically diagnosed OSMF Grade III and Grade IVA patients. (Khanna and Andrade classification, 1995)
2. Patients who have not undergone any surgical treatment for OSMF before and unresponsive to medicinal treatment.
3. Patients who are willing to quit areca nut and/or tobacco chewing habit.
4. Patients who are ready to attend regular follow ups for atleast 6 months.

EXCLUSION CRITERIA:

1. OSMF patients in association with malignancies.

All the patients were motivated and explained about the postoperative physiotherapy i.e. Mouth opening and blowing exercises for atleast 6 months.

SAMPLE SIZE:

The study sample comprises of 35 clinically diagnosed Grade

III and Grade IVA OSMF patients.

Procedure planned: All the patients were treated with fibrotomy along with reconstruction of defect with conventional nasolabial flap.

Measures:

QOL in OSMF patients before and 6 months after surgery was measured through a questionnaire. Multiscale questionnaire was formulated and patients were asked to fill them. Fourteen multiscale questions were asked to patients pre-operatively and sixteen were asked 6 months post-operatively.

Statistical analysis: The data was entered into the excel sheet. The data was analysed using SPSS 20.0 version. The responses to various questions were described in percentages.

Data analysis and results

The study included 35 patients. The mean age of the study subjects was 42.1429±10.56393 with 68.6% of males and 31.4% of females (table 1, figure 1)

Table 1. Gender-wise distribution of study subjects.

	Number	Percentage
Male	24	68.6%
Female	11	31.4%
Total	35	100

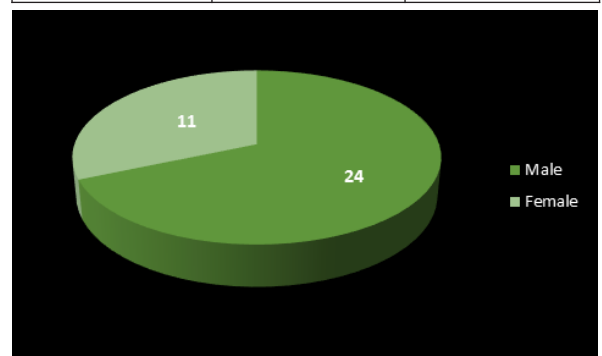


Figure 1. Gender-wise distribution of study subjects.

Table 2. Response to various question (pre-operatively).

S. no.	Question	Response	Number of respondents	Percentage
1	For how many years you ate arecanut / betelnut / paan	0-1 year	0	0
		Less than 10 years	17	48.6
		More than 10 years	18	51.4
2.	Have you quit the habit	Yes	24	68.6
		No	11	31.4
3.	Mouth opening / how many fingers can go inside your mouth	One finger	26	74.3
		Two fingers	9	25.7
		Three fingers	0	0
		Four fingers	0	0
4.	Are your tongue movements restricted	Yes	30	85.7
		No	5	14.3
5.	Does your speech make you uncomfortable	Yes, nasal tonality is present	30	85.7
		No	5	14.3
6.	Are your cheeks stiff? Can you blow your cheeks?	No, they are not flexible. Cannot blow them at all.	29	82.9
		Slightly flexible. But air leaks out.	6	17.1
		Yes, they are flexible. Can blow them properly.	0	0
7.	Do you feel discomforts / burning sensation while eating spicy foods	Uncomfortable	30	85.7
		Neither uncomfortable nor comfortable	5	14.3
		Comfortable	0	0
8.	Is your oral environment compromised & associated with dry mouth & sticky saliva	Severely present	25	71.4
		Present	10	28.6
		Absent	0	0
9.	Are you embarrassed of yourself eating socially?	Yes. Cannot eat with spoon. Have to take very small bites. Avoid going to social gatherings.	26	74.3
		Neither embarrassed nor happy.	9	25.7
		No	0	0
10.	Are you satisfied with your physical health & appearance?	Dissatisfied	13	37.1
		Neither dissatisfied nor satisfied	22	62.9
		Satisfied	0	0
11.	Are you satisfied with your psychological health	Dissatisfied	19	54.3
		Neither dissatisfied nor satisfied	16	45.7
		Satisfied	0	0
12.	Do you like attending social gatherings	Yes	7	20.0
		No	28	80.0
13.	Have you taken treatment before for the same	Yes. Have taken medicinal treatment.	9	25.7
		Yes. Have taken medicinal & intra-lesional treatment.	19	54.3
		No. Have taken no treatment	7	20.0
14.	Does difficulty in eating affects your quality of life	Yes. Every time at home as well as at social gatherings.	31	88.6
		Only in social gatherings.	0	0
		Only at home.	4	11.4
		No. Not at all.	0	0

Table 3. Response to various question (post-operatively).

S. no.	Question	Response	Number of respondents	Percentage
1.	Have you ever eaten arecanut / betelnut / paan after treatment	Yes	0	0
		No	35	100.0
2.	Is your mouth opening increased	Yes	35	100.0
		No	0	0
3.	If yes, then how many fingers can go inside your mouth	One finger	0	0
		Two finger	1	2.9
		Three finger	10	28.6
		Four finger	24	68.6
4.	Are you doing mouth flexibility exercise regularly	Yes. Do it regularly.	26	74.3
		Sometimes miss it.	5	14.3
		No. Do not do at all	4	11.4
5.	Are your tongue movements at liberty than before	Yes	35	100.0
		No	0	0
6.	Is there any betterment / comfortness with your speech than before	Yes. There is no nasal tonality now.	35	100.0
		No. It is same as before.	0	0
7.	Are your cheeks still stiff? Can you blow / whistle / pout properly	Yes. They are still stiff. Cannot blow / whistle / pout.	0	0
		Better than before. But still air leaks out.	1	2.9
		Cheeks as flexible. Can easily blow / whistle / pout.	34	97.1

8.	Do you still feel discomfort / burning sensation while eating spicy foods	Yes. Still feel burning sensation	0	0
		Better than before	0	0
		No. Do not feel any discomfort	35	100.0
9.	Is your oral environment still compromise? Do you still feel dry mouth & sticky saliva?	Yes	0	0
		No	35	100.0
10.	Are you still embarrassed of yourself eating socially?	Yes	0	0
		Better than before	1	2.9
		Not at all. Can eat with spoon easily. Can open mouth as wide as eating water pancakes.	34	97.1
11.	Are you satisfied with your physical health & appearance now?	Dissatisfied.	0	0
		Better than before	11	31.4
		Satisfied. Have gained weight than before because can eat properly cause can open mouth properly	24	68.6
12.	Are you satisfied with your psychological health now?	Dissatisfied	5	14.3
		Better than before	6	17.1
		Satisfied. Very much comfortable for social gatherings because no one can tease now for the same	24	68.6
13.	Do you like attending social gatherings now?	Yes	35	0
		No	0	0
14.	Does surgery affect your quality of life?	Yes	35	0
		No	0	0
15.	Rate the quality of life after surgery	Poor	0	0
		Fair	0	0
		Good	16	45.7
		Very good	19	54.3
16	Are you satisfied with the facial scar	Dissatisfied	3	8.6
		Neither satisfied nor dissatisfied	9	25.7
		Satisfied	23	65.7

The duration of habit of chewing arecanut/betelnut/paan females (chi-square value-1.457, df-1, p value- 0.227) was non-significantly different between males and (table 2).

Table 4. Comparison of different responses between males and females.

		Male	Female	Chi-square value	P value
Mouth opening	One finger	15 (62.5%)	11(100%)	5.553	0.018*
	Two finger	9 (37.5%)	0 (0%)		
Embarrassment of eating socially	Yes	15 (62.5%)	11(100%)	5.553	0.018*
	No	9 (37.5%)	0 (0%)		
Satisfaction with physical health & appearance	Dissatisfied	3 (12.5%)	10 (90.9%)	19.863	0.000*
	Neither dissatisfied nor satisfied	21 (87.5%)	1 (9.1%)		
	Satisfied	0 (0.0%)	0 (0.0%)		
Satisfaction with psychological health	Dissatisfied	8 (33.3%)	11 (100.0%)	13.509	0.000*
	Neither dissatisfied nor satisfied	16 (66.7%)	0 (0.0%)		
	Satisfied	0 (0.0%)	0 (0.0%)		
Have you taken treatment before for the same	Yes. Have taken medicinal treatment.	9 (37.5%)	0 (0.0%)	6.392	0.041*
	Yes. Have taken medicinal & 2intra-lesional treatment.	10 (41.7%)	9 (81.8%)		
	No. Have taken no treatment	5 (20.8%)	2 (18.2%)		
How many fingers can go inside your mouth post-operatively	One finger	0 (0.0%)	0 (0.0%)	35.000	0.000*
	Two finger	0 (0.0%)	1 (9.1%)		
	Three finger	0 (0.0%)	10 (90.0%)		
	4fingers	24 (100.0%)	0 (0.0%)		
Practicing mouth flexibility exercise regularly	Yes. Do it regularly.	21 (87.5%)	5 (45.5%)	12.781	0.002*
	Sometimes miss it.	0 (0.0%)	5 (45.5%)		
	No. Do not do at all	3 (12.5%)	1 (9.1%)		
Satisfied with psychological health post-operatively	Dissatisfied	5 (20.8%)	0 (0.0%)	16.633	0.000*
	Better than before	0 (0.0%)	6 (54.5%)		
	Satisfied. Very much comfortable for social gatherings because no one can tease now for the same	19 (79.2%)	5 (45.5%)		
Rate the quality of life after surgery	Poor	0 (0.0%)	0 (0.0%)	8.426	0.004*
	Fair	0 (0.0%)	0 (0.0%)		
	Good	7 (29.2%)	9 (81.8%)		
	Very good	17 (70.8%)	2 (19.2%)		
Are you satisfied with the facial scar	Dissatisfied	3 (12.5%)	0	26.527	0.000*
	Neither satisfied nor dissatisfied	0 (0.0%)	9 (81.8%)		
	Satisfied	21 (87.5%)	2 (18.2%)		

The mouth opening was found to have significant association with gender. Amongst the females, preoperatively the proportion of those having one finger opening was significantly greater (table 2).

Comparatively significantly greater proportion of females was found to be satisfied with their physical health and appearance preoperatively (table 2).

None of the patients were satisfied with their psychological health. However, the proportion of dissatisfied female patients was significantly greater than the male patients (table 2).

The proportion of patients who sometimes miss the flexibility exercise was significantly more amongst females as compared to males (table 3).

On asking about the improvement in psychological satisfaction, significantly smaller proportion of males (0%) as compared to females (54.5%) reported that they are feeling better than before (Table 4).

Amongst the males a significantly greater proportion reported very good quality of life after surgery (table 4).

Significantly greater proportion of male patients was found to be satisfied with facial scar (table 4).

Table 5. Comparison of pre and post operative responses to different questions.

		Pre	Post	Chi-square	P value
Mouth opening	One finger	26	0	66.400	0.000*
	Two finger	9	1		
	Three finger	0	10		
	Four finger	0	24		
Satisfaction with physical health	Dissatisfied.	13	0	40.667	0.000*
	Better than before	22	11		
	Satisfied. Have gained weight than before because can eat properly cause can open mouth properly	0	24		
Satisfaction with psychological health	Dissatisfied	19	5	36.712	0.000*
	Better than before	16	6		
	Satisfied	0	24		

A significant improvement in mouth opening was observed after the surgery. None of the patients had 1 finger opening after the surgery and a significant greater proportion (68.5%) of patients reported mouth opening of 4 fingers. Where preoperatively none of the patients were satisfied with physical health (0.0%), the proportion rose to 68.5% after the surgery (table 5).

The number of patients satisfied with their psychological health was 0 before the surgery; however, post-operatively 68.5% patients were satisfied with their psychological health (table 5).

DISCUSSION

OSMF is a precancerous condition and has wide variety of etiological factors, among which chewing areca nut is the most common⁴⁶. All patients had a positive history of chewing betel nut or tobacco or combination of both for variable duration of time. The diagnostic criteria for OSMF include intolerance to hot and spicy food, burning sensation of oral mucosa, and difficulty in opening mouth. These patients have compromised life style involving difficulty in taking partakes of food by default in opening mouth; dissatisfied with physical and psychological well being. There are various treatment

modalities available. Generally, Grade III and Grade IVA require surgical treatment. Total 35 patients were included with the mean age of 42.1. Pre operatively all of them had reduced mouth opening and were dissatisfied with their quality of life. After quitting habit they all underwent surgical treatment with regular follow-up for six months and with mouth opening and blowing exercise. With the help of vigorous exercise most of them maintained their mouth opening. On comparing pre and post quality of life significantly greater proportion reported very good quality of life, none of them rated poor or fair. The drawback of reconstructing the oral defect with nasolabial flap is the extra-oral scar, hence the greater proportion of male patients was found to be satisfied with facial scar.

CONCLUSION

Present study concludes that OSMF have pessimistic effect on quality of life. One's physical and psychological well being is harmed, also person avoids going to social gatherings. Before treatment one's quality of life is severely compromised while after surgical treatment and proper exercise for 6 months quality of life is surely improved.

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