

Quality of life and glossectomy: evaluation of quality of life after partial glossectomy

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ABSTRACT

Context: Treatments for tongue cancer are responsible for functional and aesthetic impacts, which can affect quality of life.

Objectives: To assess different quality of life dimensions in a prospective study after partial glossectomy and to investigate correlations among these dimensions to propose adapted rehabilitation.

Material and methods: The quality of life questionnaire was administered to 16 patients (5 female and 11 male), that underwent partial glossectomy. We used a general quality of life questionnaire adapted to cancer pathology EORTC QLQC30 and its specific complementary module, H&N35 that is adapted to cancers of the head and the neck.

Results: The mean level of satisfaction was 71% for global quality of life and 83% for the functional scale. Of the patients, 13% complained of general symptoms and 76% of specific "head and neck" symptoms. We noted no correlation between scales of "global quality of life" and "specific symptoms".

Conclusions: The quality of life scale is a good measure to allow patients to express their difficulties. This tool permits to develop a personalised approach and care that is adapted to expectations of each patient.

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Key words: Quality of life, Partial glossectomy, EORTC QLQC30 scale, EORTC H&N35 scale.

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INTRODUCTION

In the context of head and neck cancers, treatments (surgical removal, radiotherapy, chemotherapy) often have important repercussions on function and aesthetics which can alter quality of life [1-6]. Quality of life is a multifactorial and highly personal concept, which does not depend fully on the alteration or loss of particular functioning, particularly in the case of pathologies like tongue cancer [7-9].

After reviewing the literature concerning quality of life and functional evaluations after glossectomy we noted that the majority of studies were performed on quality of life after total glossectomy with reconstruction [1,10-14]. These interventions were considered as being very mutilating and had de facto serious functional consequences, which could have major repercussion for quality of life. Partial removal of the mobile part of the tongue and/or partial removal of the base of the tongue were not the object of quality of life questionnaires, undoubtedly because they appeared to generate changes that were judged as being functionally “minor”.

Our study was orientated toward data collection using a quality of life questionnaire in a proposed population of 16 patients that underwent partial glossectomy via the endobuccal approach. We formed a hypothesis that quality of life after partial glossectomy could not be in keeping with the lasting functional capacity. In other words: “Is being intelligible, not having functional discomfort, being able to feed oneself correctly, sufficient for a good quality of life after partial glossectomy?”

Our objective was to assess the subjective and functional dimensions of quality of life reported by patients and to assess correlations between the results of different evaluations in order to interpret patients’ profiles and the degree of expressed disability. Our approach was aimed towards better comprehension in the future of the specific needs of the individual patient in order to develop adapted and personalised orthophonic care.

MATERIALS AND METHODS

Population

This prospective study included 16 consecutive patients that came for a post-operative ENT follow-up over a

period of 7 months. Patients were not specifically called to participate in the study but we reevaluated regardless of the post-operative interval. During this post-operative visit, these patients were primarily seen by a surgeon then taken over by a phoniatric specialist. All patients were informed of the objectives of the study and gave an informed consent.

Were included all patients with the following surgical inclusion criteria: previous tongue cancer operation (partial glossectomy) followed with or without reconstruction and/or radiotherapy.

Were excluded non-French-speakers, patients with neurological effects (degenerative disease, stroke, etc.), patients that underwent a second resection due to a second cancer site in an ENT location (i.e., laryngectomy), patients with innate or acquired physical or mental disability linked to another aetiology than cancer.

Protocol

The data were collected with a quality of life self-questionnaire filled out by patients in the presence of speech therapist.

A. Quality of life questionnaires

The quality of life questionnaire used was the one from the EORTC (European Organisation for Research and Treatment of Cancer). The questionnaire is available and validated in French and encompasses the general questionnaire QLQ-C30 adapted to all cancer pathologies, and accompanied by a specific questionnaire adapted to cancer of the upper aero-digestive tract: the H&N35 (“Head and Neck”).

1. The EORTC QLQ-C30 (Table I)

The QLQ C30 module is a qualitative self-evaluation scale ordered by intensity. This scale was developed in 1983 by Aaronson et al. [15] as part of the EORTC. We chose the last version of the general questionnaire, EORTC QLQ-C30 version 3 from 1993 and its specific “Head and Neck” module the QLQ-H&N35, as we had database access to encrypted results of a population of 279 patients with cancer of the oral cavity, thus allowing us to compare the results of our study to data obtained in a larger population.

The QLQ C30 module concerns all patients with cancer regardless of site and integrates the three following

concepts which constitute three subscales: 1) health and general quality of life, 2) functional scales (physique, daily activity, emotional, cognitive, social), 3) general symptoms scale (symptoms linked with cancer regardless of localisation). The first two subscales are rated from 1 to 4 (1= not at all, 2= a little, 3= average, 4= a lot); grade 4 corresponds to an index of maximal satisfaction. The third subscale is rated like the first two, except that in this case, grade 4 corresponds of maximal level of symptom (an index of discontentment) and has to be considered as a major determinant of quality of life changes.

2. EORTC H&N35 (Table II)

The H&N35 module is a specific head and neck cancer questionnaire, regardless of staging and treatment modalities (surgery, radiotherapy and chemotherapy). It consists of 35 questions. An elevated score indicates the presence of a large number of specific symptoms acting as factors to cause a deterioration of specific aspects of quality of life.

Statistical Analysis

Data collected were handled statistically using non-parametric tests. The degree of significance of the ratio between variables was measured using Spearman's correlation with an error risk of $\alpha = 0.01$.

RESULTS

I. Population

The population studied consisted of 5 females and 11 males, aged from 26 to 82 years; the mean age was 52 years in women and 58 years in men (Table III).

The distribution of patients according to the TNM classification is described in Table III. The post-operative delay was from 2 to 13 months after the time of surgery as reported by patients.

II. Results of the quality of life questionnaire EORTC QLQ-C30

A. Health and general quality of life (Table IV)

Patients had a health and general quality of life score of 71%, with a standard deviation of 27%; the score of the reference population in the EORTC database was

68%. Eleven patients (68% of the population studied) had satisfaction scores of general quality of life of greater than or equal to 50%

B. Functional scale (Table V)

The mean score for the 5 functional domains (physique, emotional, cognitive, social and daily activity) in the study population was 83%, while the reference population score was 82%. We noted a very important dispersion in the functional scores obtained in our study population, with the standard deviation varying from 18% to 27% according to functional domain. The standard deviations of the reference population were also wide (17-24%). Despite the wide standard deviations, it was noted that 13 patients (81% of study population) had satisfaction scores for general performance of between 80 and 100%.

C. General symptoms scale (Table VI)

We measured mean rate of general symptoms of 13% for the entire of scores, while for the reference population in the EORTC database this was 15%. The standard deviation was 15-34%, according to the domain. The results from our population were markedly scattered.

III. Results of quality of life questionnaire EORTC H&N35 (Table VII)

There was a mean of 23% for specific "head and neck" complains, with a standard deviation of 19%. Our population was very heterogeneous with standard deviation extremes from 13 to 47%.

IV. Correlations between different scales of questionnaire (Table VIII)

A. Correlation between general quality of life scale and functional scale

There was a significant statistical correlation ($r = 0.674$) and $\alpha = 0.01$ between the general quality of life scale and functional scale (Figure 1).

B. Correlation between the general quality of life scale and general symptoms scale

There was a significant statistical correlation ($r = 0.631$) and $\alpha = 0.05$ between the general quality of life scale and the general symptoms scale (Figure 2).

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Table I

EORTC QLQ-C30 (version 3)

We are interested in some things about you and your health. Please answer all of the questions yourself by circling the number that best applies to you. There are no "right" or "wrong" answers. The information that you provide will remain strictly confidential.

Please fill in:

your initials:

--	--	--	--

Your birthdate (Day, Month, Year):

--	--	--	--	--	--	--	--

Today's date (Day, Month, Year): 31

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	Not at All	A Little	Quite a Bit	Very Much
1. Do you have any trouble doing strenuous activities, like carrying a heavy shopping bag or a suitcase?	1	2	3	4
2. Do you have any trouble taking a long walk?	1	2	3	4
3. Do you have any trouble taking a short walk outside of the house?	1	2	3	4
4. Do you need to stay in bed or a chair during the day?	1	2	3	4
5. Do you need help with eating, dressing, washing yourself or using the toilet?	1	2	3	4
During the past week:				
	Not at All	A Little	Quite a Bit	Very Much
6. Were you limited in doing either your work or other daily activities?	1	2	3	4
7. Were you limited in pursuing your hobbies or other leisure time activities?	1	2	3	4
8. Were you short of breath?	1	2	3	4
9. Have you had pain?	1	2	3	4
10. Did you need to rest?	1	2	3	4
11. Have you had trouble sleeping?	1	2	3	4
12. Have you felt weak?	1	2	3	4
13. Have you lacked appetite?	1	2	3	4
14. Have you felt nauseated?	1	2	3	4
15. Have you vomited?	1	2	3	4

Please go on to the next page

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During the past week:	Not at All	A Little	Quite a Bit	Very Much			
16. Have you been constipated?	1	2	3	4			
17. Have you had diarrhea?	1	2	3	4			
18. Were you tired?	1	2	3	4			
19. Did pain interfere with your daily activities?	1	2	3	4			
20. Have you had difficulty in concentrating on things, like reading a newspaper or watching television?	1	2	3	4			
21. Did you feel tense?	1	2	3	4			
22. Did you worry?	1	2	3	4			
23. Did you feel irritable?	1	2	3	4			
24. Did you feel depressed?	1	2	3	4			
25. Have you had difficulty remembering things?	1	2	3	4			
26. Has your physical condition or medical treatment interfered with your family life?	1	2	3	4			
27. Has your physical condition or medical treatment interfered with your social activities?	1	2	3	4			
28. Has your physical condition or medical treatment caused you financial difficulties?	1	2	3	4			
For the following questions please circle the number between 1 and 7 that best applies to you							
29. How would you rate your overall health during the past week?	1	2	3	4	5	6	7
Very poor							Excellent
30. How would you rate your overall quality of life during the past week?	1	2	3	4	5	6	7
Very poor							Excellent
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Table II

EORTC QLQ - H&N35

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week. Please answer by circling the number that best applies to you.

During the past week:	Not at all	A little	Quite a bit	Very much
31. Have you had pain in your mouth?	1	2	3	4
32. Have you had pain in your jaw?	1	2	3	4
33. Have you had soreness in your mouth?	1	2	3	4
34. Have you had a painful throat?	1	2	3	4
35. Have you had problems swallowing liquids?	1	2	3	4
36. Have you had problems swallowing pureed food?	1	2	3	4
37. Have you had problems swallowing solid food?	1	2	3	4
38. Have you choked when swallowing?	1	2	3	4
39. Have you had problems with your teeth?	1	2	3	4
40. Have you had problems opening your mouth wide?	1	2	3	4
41. Have you had a dry mouth?	1	2	3	4
42. Have you had sticky saliva?	1	2	3	4
43. Have you had problems with your sense of smell?	1	2	3	4
44. Have you had problems with your sense of taste?	1	2	3	4
45. Have you coughed?	1	2	3	4
46. Have you been hoarse?	1	2	3	4
47. Have you felt ill?	1	2	3	4
48. Has your appearance bothered you?	1	2	3	4

Please go on to the next page

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During the past week:	Not at all	A little	Quite a bit	Very much
49. Have you had trouble eating?	1	2	3	4
50. Have you had trouble eating in front of your family?	1	2	3	4
51. Have you had trouble eating in front of other people?	1	2	3	4
52. Have you had trouble enjoying your meals?	1	2	3	4
53. Have you had trouble talking to other people?	1	2	3	4
54. Have you had trouble talking on the telephone?	1	2	3	4
55. Have you had trouble having social contact with your family?	1	2	3	4
56. Have you had trouble having social contact with friends?	1	2	3	4
57. Have you had trouble going out in public?	1	2	3	4
58. Have you had trouble having physical contact with family or friends?	1	2	3	4
59. Have you felt less interest in sex?	1	2	3	4
60. Have you felt less sexual enjoyment?	1	2	3	4
During the past week:		Non		Oui
61. Have you used pain-killers?		1		2
62. Have you taken any nutritional supplements (excluding vitamins)?		1		2
63. Have you used a feeding tube?		1		2
64. Have you lost weight?		1		2
65. Have you gained weight?		1		2
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Table III: Characteristics of the study population

Patient N°	age	sex	Familial Status	Profession	Post-operative delay	T	N	M	Removal of mobile part of tongue	Removal of base of tongue	Radiotherapy	Reconstruction	Ortho-phony	Lymph nodes removal
1	52	M	married	worker (unemployed)	14 months	T4	N2	M0	hemi MT right	BoT	+	Right Latissimus dorsi myocutaneous flap	-	Radical modified complete right (Ib, IIa, III, IV and V partial)
2	57	M	married	aeronautical technician (unemployed)	2 months	T3	N0	M0	Posterior: side MT right	BoT+ MT	+	Right antebrachial fascio-cutaneous flap	-	Selective right cervical (Ib,IIa, IIb, III)
3	69	M	married	worker (pensioner)	8 months	T4	N0	M0	2/3 MT right-JZ floor	0	+	Z-plasty	-	Bilateral modified complete radical
4	26	F	married	no profession	12 months	T2	N1	M0	posterior MT left	2/3 BoT+ MT	+	Latissimus dorsi myocutaneous flap	+	radical modified left (IIa, IIb, III, IV and V)
5	82	M	married	Railway work pensioner	5 months	T2	N0	M0	free edge MT right	0	-		-	Triangular right
6	57	F	widow	no profession	11 months	T2	N0	M0	free edge MT right	0	-		-	Selective (Ib, IIa, III)
7	60	M	married	technical manager	7 months	T2	N1	M0	hemi MT left	0	-		-	Selective right cervical (Ib,IIa, IIb, IIb, III)
8	38	M	married	technician (unemployed)	5 months	T2	N0	M0	hemi MT left	0	-		-	Complete radical modified left (Ib, IIa, IIb, III, IV and V)
9	53	M	divorced	chemical worker	5 months 1/2	T2	N0	M0	2/3 MT left	0	-		-	Triangular left
10	57	M	married	supermarket employee	11 months	T2	N1	M0	hemi MT right	0	-		-	Selective right (Ia, Ib, IIa, III)
11	53	F	married	worker (unemployed)	5 months	T1	N0	M0	free edge MT right idem floor	0	-		-	Superior right cervical (IIa, III)
12	51	F	divorced	no profession	2 months 1/2	T2	N0	M0	edge posterior left+floor	+space + anterior pillar	-		-	Radical modified (IIa, IIb, III, IV)
13	61	M	married	manager pensioner	5 months	T2	N0	M0	edge posterior left+ anterior droite	+2nd localisal° (larynx) not operated	+		-	No lymph node resection
14	48	M	married	technician	10 months	T2	N0	M0	Ventral surface MT		-		-	Bilateral lymph node exploration
15	73	F	married	shopkeeper pensioner	5 months	T1	N0	M0	anterior edge MT left		-		-	Selective left (III, IIa, and Ib)
16	65	M	married	truck driver pensioner	10 months	T2	N0	M0	Posterior edge MT right	+anterior pillar	-		-	Selective right (Ib, IIa, III)

MT- Mobile tongue, BoT-base of tongue, TS-tonsil space, JZ-junction zone

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Table IV: Mean Scale of Health and General Quality of Life from the EORTC QLQ-C30.
Comparison study population / population EORTC.

	Personal estimation of health and general quality of life
Mean in study population	71.0 %
Standard deviation in the study	27.3%
Mean of EORTC database	68.6%
Standard deviation of EORTC database	20.1%

The results of our study were expressed as % of satisfaction in the table above and compared to the mean of EORTC data base

Table V: Mean “functional scale” of EORTC QLQ-C30.
Comparison study population / population EORTC.

Functional domain	Physique	Daily activity	Emotional	Cognitive	Social	Mean/patient
Mean in study population	83.0%	85.0%	70.0%	90.0%	86.0%	83.0%
Standard deviation in the study	25.0%	27.0%	25.0%	25.0%	18.0%	16.0%
Mean in EORTC database	87.0%	84.3%	68.8%	87.0%	84.8%	82.4%
Standard deviation in EORTC database	20.0%	24.3%	22.3%	17.4%	23.0%	21.4%

The results of our study were expressed as % of satisfaction in the table above and compared to mean of the EORTC data base

Table VI: Mean “general symptoms scale” of EORTC QLQ-C30.
Comparison study population / population EORTC.

General symptoms	Fatigue	Nausea Vomiting	Pain	Dyspnoea	Insomnia	Appetite loss	Constipation	Diarrhoea	Financial difficulties	Mean/Patient
Mean in study population	16.0%	4.0%	16.0%	19.0%	27.0%	10.0%	10.0%	8.0%	4.0%	13.0%
Standard deviation of the study	23.0%	16.0%	16.0%	26.0%	34.0%	26.0%	23.0%	25.0%	16.0%	15.0%
Mean of EORTC database	25.9%	3.9%	25.7%	14.0%	29.0%	17.7%	8.5%	4.7%	11.4%	15.6%

The results of our study were expressed as % of discontentment in the table above and compared to the mean in the EORTC data base.

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Table VII: Mean of “specific symptoms scale” EORTC H&N35.

Category of symptoms	Mean/ Symptom For study population	Standard deviation/Symptom For study population
Pain	14%	19%
Swallowing	23%	29%
Sense of smell/taste	13%	20%
Speech	19%	21%
Eat in the society	23%	35%
Social contacts	10%	20%
Sexuality	28%	44%
Teeth	37%	47%
Mouth opening	21%	32%
Dry mouth	44%	37%
Sticky saliva	26%	40%
Cough	14%	24%
To feel sick	9%	19%
Pain-killers intake	26%	46%
Sup. nutritional	26%	46%
Nutritional catheter	0%	0%
Weight loss	37%	50%
Weight gain	48%	13%
Mean of symptoms score/patient	23%	19%

The results of our study were expressed as % of discontentment in the table above (there is no database for this scale which would permit a comparison of our study population with reference population).

Table VIII: Correlations between different scales of a questionnaire

Evaluation type	Function	General symptoms	Specific symptoms
General quality of life	r = 0.674 α = 0.010	r = 0.631 α = 0.050	r = 0.369 NS

NS: not significant

C. Correlation between general quality of life scale and specific symptoms scale

There was no correlation ($r=0.369$) between the general quality of life reported by patients and the specific symptoms scale that they reported (Figure 3).

DISCUSSION

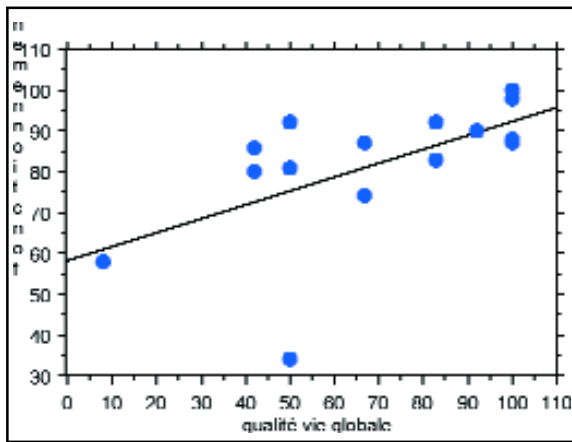
Quality of life questionnaire

Based on our results obtained with the EORTC scale, we noted that our patients were relatively satisfied with

their health and their general quality of life (71% satisfaction) as well as their performance (physical, emotional, cognitive, social and daily activity), for which there was 83% satisfaction. The mean rate of general symptoms was 13%. The rate of specific “head and neck” complaints was 23%.

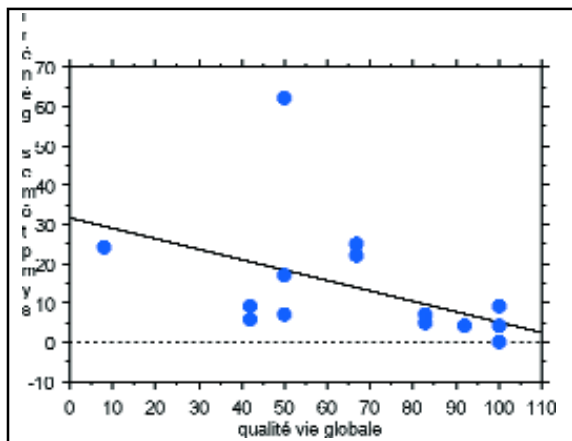
The results obtained were close to the results from the reference population for three non-specific domains of “head and neck” pathology: general quality of life (71% versus 68.6%), performance (83% versus 82%) and general symptoms (13% versus 15%). In contrast, there was no reference population for specific symptoms.

Figure 1: Spearman's correlation: general quality of life/ functions



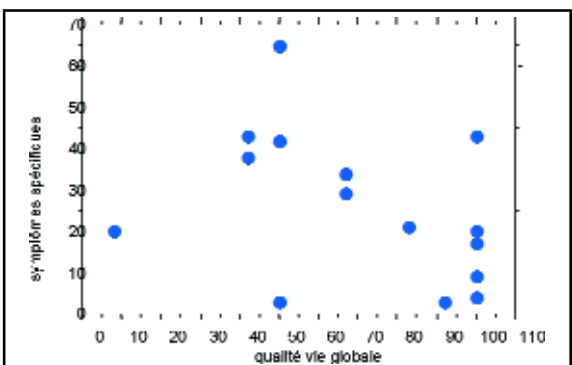
For $N = 16$, $r(\rho) = 0.674$, which corresponds a statistically significant correlation for $\alpha = 0.01$

Figure 2: Spearman's correlation: general quality of life/ general symptoms



For $N = 16$, $r(\rho) = 0.631$, which corresponds a statistically significant correlation for $\alpha = 0.05$

Figure 3: Spearman's correlation: general quality of life/ specific symptoms



For $N = 16$, $r(\rho) = 0.369$, which corresponds an absence of correlation

However, we noted a wide dispersion in the results, which could be related on one hand to the heterogeneity in the site and size of surgical excision. On the other hand, there was an absence of homogeneity in the post-operative delay.

In the literature few studies have addressed quality of life after partial glossectomy [2-3]. Our hypothesis was that the quality of life after partial glossectomy would not be in keeping with the remaining functional capacity. In other words: “is being intelligible, not having functional discomfort, and being able to feed oneself correctly, sufficient for a good quality of life after partial glossectomy?” There was a significant statistical correlation between the general quality of life scale and the functional scale and also general symptoms, whereas we did not find any correlation between the general quality of life scale and the specific symptom from the “head and neck” scale. In other words, in spite of a large number of specific symptoms, certain patients in our study seemed to be able to adapt themselves to deficits or handicaps and generally appreciated their quality of life as being satisfactory. On the contrary, other patients rated their quality of life as being altered by cancer pathology in the absence of specific symptoms. This lack of a significant correlation could illustrate the subjective character and individuality of the concept of quality of life within the framework of head and neck pathology. This finding could be explained by an adaptive capacity to handicap or by modification of the personal values of patient. Nevertheless, our results could be biased by the small population of our study, reducing statistical power of our tests.

The functional evaluation after partial glossectomy represents a concrete element, which could be the initial approach to the patient's quality of life. Studies to our knowledge have not address directly the notion of quality of life, and were generally interested in intelligibility of speech [2-3,10-13], the efficiency of swallowing [14], and/or the psychological condition of patients [4-5,7-8]. These studies highlighted functional difficulties concerning speech and swallowing that are frequently present after partial glossectomy of the mobile tongue and/or the base of the tongue. However, our study allows us to underline that the concept of quality of life is not limited only by speech and swallowing function. Also, to understand the handicaps expressed by patients, it is necessary to explore other

physical, functional and emotional dimensions in order to offer better patient management. It is important to note that these studies have been performed in relatively small populations that were often heterogeneous. This reflects the complexity of anatomical structures related to tongue cancer, the heterogeneity of tumor site extension as well as challenging population recruitment and long-term follow-up in those affected by pathologies with a severe prognosis.

Quality of life can be only estimated by the individual's own perception. This is scalable and dynamic, consisting of several dimensions related to cultural, social, psycho-affective and pathological contexts.

Patient interest in the quality of life questionnaire

The patients greeted the quality of life questionnaire favourably. None of our patients previously had the opportunity to fill out a questionnaire of this type. The vast majority of patients appreciated this support, which permitted them to express what they "did not have the time to tell during a consultation to a physician... or did not dare to speak about it because it was "beside the point"". Some patients perceived the interest of this information, which they reported to us as follows "it allows us to be better understood, it was an operation and even if we are "cured", life is different ... and people around us do not understand us".

Written support appears to be a good measure. It allows the patient to evoke in comprehensive manner the factors that participate in determining his quality of life. This therefore avoids the need for the therapist to approach problems that are individual to each patient, either by over-targeted oral questions (which by necessity should be very limited) or by questions influenced by personal subjectivity. This support is written and formalized, which allows for the comparison of profiles obtained by a patient over time providing a correct view of the evolution and the adaptation of a patient to his handicap. Finally, such support addresses themes such as the sexuality, which patients may not bring up spontaneously but which is present in their appreciation of their quality of life. Thus, a patient has commented in response to a question and seemed "reassured" by the presence of this item, suggesting that if the question is asked, it means, like he said, that he is "not alone in having this type of problem".

Importance of speech therapy management

Speech therapy care management plans consist of performing detailed assessment of the preserved or compensated functions and the patient's deficits and handicaps. In addition, collecting information on the experience of the illness, the sequelae, side-effects and the development of a rehabilitation plan might help to adjust our speech therapy care management plans according to the patient's complaints and expectations. This speech therapy evaluation could be augmented by using a quality of life questionnaire such as EORTC QLQ-C30 and its specific "head and neck" module QLQ-H&N35.

This speech therapy management step could be proposed during the immediate post-operative period and/or after radiotherapy follow-up. It permits, on one hand, the avoidance of communication withdrawal or refusal due to speech alteration and, on the other hand, can prevent dramatic consequences of malnutrition due to swallowing difficulties. It aims also for the rehabilitation of the patient by improving his quality of life in the domains of speech intelligibility, communication, swallowing and the acceptance of his handicap.

There is an extremely low referral for speech therapy in spite of the practical effects (notably difficulties in alimentation and swallowing) and speech distortion (mean rate of 45%). This can be explained by the scarcity of data in the literature regarding speech therapy re-education in patients that underwent partial glossectomy.

In the framework of our study and as a result of its findings, proposing speech therapy management would be desirable for patients having decreased functional scores and/or an increased rate of speech alterations, in addition to patients without major deficits, but with functional difficulties or those expressing a need for help. There is a notable lack of awareness on the part of patients concerning the possibility of clinical care management of swallowing difficulties.

Study limitations

We have evaluated quality of life only in 16 consecutive patients during post-operative consultation. These patients were primarily seen by a surgeon and then taken

over by a phoniatric specialist, who presented the objectives of the study and asked for consent. At that stage, the patients were evaluated by a speech therapist. The time taken to complete the questionnaire was 20-30 minutes followed by discussion time, allowing orientation of the patient towards adapted care. The duration of study was limited to 7 months, because of the length of the evaluation and the involvement of the speech therapist between November to June; this also limited the number of patients included in this study. Our population was heterogeneous in terms of age, the size of the surgical resection and the post-operative delay before beginning the study. This initial study should be followed using larger sample sizes and with a long-term evaluation of quality of life and the benefit of speech therapy management.

CONCLUSION

The results obtained using a quality of life questionnaire have highlighted different profiles and underlined the heterogeneity of patients towards the concept of handicap in this type of pathology. The quality of life questionnaire is proven to be a useful measure to allow patients to express the difficulties linked to their pathology or/and to its treatment, which have not been approached systematically as a part of a post-operative follow-up consultation. Expression of incapacity and handicap in everyday life should allow the orientation of patients towards care aimed at functional and relational rehabilitation and adaptation relating to the responses expressed in the quality of life questionnaires.

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