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The quality of life of laryngectomised patients

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RESEARCH

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Abstract

Background
A total laryngectomy is a stressful experience for patients with laryngeal carcinoma. Total laryngectomy extends patients' lives at the expense of complete loss of natural voice, subsequent poor quality of life (QOL) and changes in social roles. This study aimed to assess these issues and assess QOL including the physical and the social well being (Communication, Swallowing, Social disruption, ongoing problems).

Method
A study was carried out involving all the patients who underwent laryngectomy surgery for a period of 5 years at the National Hospital of Sri Lanka. Patients were selected by systematic sampling and data were collected from twenty nine patients (28 male, 1 female) using a pre tested interviewer administered questionnaire. Medical examination of patients to identify lymph node and regional metastasis was done by the ENT senior registrar.

Results
The majority was employed and 86.2% had lost their initial employment due to the illness. Restrictions for daily activities were noted for sleeping (27.6%), communication (62.1%) and bathing (65.6%). Also excellent family support was noted in 55% but social support in only 10%. The commoner physical complaints identified were headache (41.4%), hyposmia (72.4%) and nasal block (31%). Post operative complications included dysphagia(51.7%), dyspnoea (34.5%), infections at the operated site(24.1%), hypocalcaemia(62.1%) , hypothyroidism(58.6%) ,tracheostoma related problems(24.1%), neck nodal recurrence(13.8%).

Conclusion
The problems that a laryngectomized patient is facing affect the physical, social and psychological well being. Among 65% of the patients, the surgery had improved their quality of life, but only 37% of patients had a full resolution of their previous problem following laryngectomy.

Key Words
Laryngectomy, Quality of life

Background

The concept of life quality plays a significant role in the caring of cancer patients, because the illness and the therapies used have a strong influence at the physical, psychological and relational level. Laryngeal cancers have two characteristics: they challenge the life prognosis by affecting three essential functions: breathing, phonation and feeding and they disrupt relationships. Measuring life quality will allow the caretakers to evaluate the needs of the patient in the prospect of contributing to their reintegration in family, society and professional life. This procedure must prove useful in the eyes of the patients, their environment and the caring teams. (1)Though validated instruments exist in current literature to assess the quality of life of patients with head and neck cancers(2) and following head and neck surgery(3), the instruments available(4) for laryngectomised patients are limited.

The majority of these patients undergo total laryngectomy and this radical surgery brings about several functional, aesthetic, and psychological consequences in the patients' lives.

Psychological disturbances among post operative patients may have been largely ignored by surgeons in the past. (5) However, they influence the quality of life and ultimately may have a negative effect on the prognosis. This association could still be shown when adjustments were made for gender, age, marital status, and educational level, number of children and level of treatment. (6)

In Sri Lanka, currently there are no research studies, available on quality of life of laryngectomised patients and little is discussed among the physicians regarding their quality of life. National Hospital of Sri Lanka, being the country's largest governmental tertiary health care centre concerned with ENT care, needs to provide quality care to patients with laryngeal cancer ,pre and post operatively to improve their overall wellbeing.

The goal of the our study was to evaluate the long term effect on quality of life in patients with head and neck cancer who have been subjected to a total laryngectomy in Sri Lanka.

The individual domains that were analyzed were the functional–physical component, the field of oral communication, and the aspects of familial, social, psychological, and professional life(5).

Method

The study was conducted in accordance with the Declaration of Helsinki and was approved by the ethical committee of National Hospital of Sri Lanka.

Study design, Patients and Methods

Study design

A retrospective survey of patients who underwent total laryngectomy at the National Hospital, ENT department during October, 2003 to October, 2009 was carried out. Consecutive patients, who fulfilled the criteria for the study, were included in the study.

Patients

All the patients who had undergone total laryngectomy at the ENT Department of the National Hospital of Sri Lanka, during the study period were included in the study (and at least after 3 months of undergoing the surgery).

Exclusion criteria

Terminally ill patients, severely disabled, and patients who did not consent were excluded from the study.

Methods and study instruments

Consecutive patients were interviewed by an interviewer with a semi structured questionnaire which assessed several key components of the quality of life of the laryngectomised patients.

Prior to finalisation of the questionnaire, key components to be assessed were identified from systematic reviews and relevant literature was searched. (7)In one systematic review which considered 16 studies on quality of life of head and neck cancer, the key issues were related to personality, social support, satisfaction with consultation and information, behavioural factors and depressive symptoms. Considering the cultural factors, the necessary modifications were made.

The components assessed included,

1) Demographic factors such as age, gender, profession/employment, ethnicity, marital status, place of living.
2) Effect on daily activities such as sleep, bathing, gardening, cooking and communication.
3) Physical complaints; headache, ear ache, nasal blockage, altered smell, dysphagia, dyspnoea.
4) Tracheostomy site complications; bleeding, discharge, foreign bodies, pain.
5) Social factors: family support, social support, transport, care givers, effect on income, effect on employment.
6) Psychological factors; Voice concerns, appearance concerns, effect on hobbies.
7) Post operative complaints; Hypocalcemia, hypothyroidism, tracheostomy related complications, wound infection.

This information was obtained, by interviewing the patients by trained, independent doctors.
Physical examination of all the research participants to identify stoma site recurrence and neck nodal recurrence were done by the consultant ENT surgeons.

Information was also obtained regarding patients' view of their quality of life following the surgery, and satisfaction about the surgical procedure.

Results

The mean age of the study population was 60.5 years and 96.6% were males. Patients came from 10 districts with the majority from Colombo (55.2%).

The majority was employed in semi professional, semi skilled and technical fields but no association was noted among different occupation categories and predisposition to laryngeal carcinoma.

Chart 1; Distribution of the employment status among the laryngectomised patients.

Restrictions for daily activities were noted for sleep (27.6%), gardening (34.5%), cooking (41.4%), communication (62.1%) and bathing (65.6%).

Chart 2; Effect of laryngectomy on activities of daily living.

Communication difficulties were present among 64.3% of the research participants to a degree severe enough to lead to a poor quality of life.

The commoner physical complaints identified were headache (41.4%) altered smell (72.4%) and nasal blockage (31%). Dysphagia(51.7%) and dyspnoea (34.5%) were also common physical complaints.

Chart 3; Prevalance of common physical complaints among the laryngectomised patients.

Post operative complications included infections at the operated site(24.1%), hypocalcemia(62.1%) , hypothyroidism(58.6%) ,tracheostomy related problems(24.1%),stomal recurrence(6.9%) ,and neck nodal recurrence(13.8%).

The psychological ailments such as concerns about voice, concerns about appearance and loss of interest in hobbies were also present to a high level.

Chart 4; Psychological problems of the laryngectomised patients.

Effects on the social life were identified by several factors. Problems with family support, social support, transport, care givers, effect on income, and effect on employment were assessed to identify their social well being.

Problem.	No. Of patients with the problem	Percentage (%)
1.Lack of family support	13	44.8
2.Lack of social support	13	44.8
3.Lack of transport facilities	25	89.7
4.Lack of care givers	3	10.3
5. Low income level.	25	89.7

Table 1.Analysis of the social problems.

The majority of patients (86.2%) lost their initial employment due to the illness.

Sixty five percent of the patients commented that surgery had improved their quality of life while 89.7% were willing to recommend the surgical procedure to other patients. Thirty seven percent of patients were of the opinion that their problem had been resolved fully and 6.9% complained that the surgery had not been satisfactory at all. However the percentage mean of patient satisfaction was 73.8%.

Discussion

In Sri Lanka, evidence based information on quality of life of laryngectomised patients is limited. Because of the importance of the organ involved, laryngectomy restricts patients' voice, breathing, sleeping, eating, and overall quality of life. Most of these patients undergo total laryngectomy at the National Hospital, and though their physical health is satisfactorily addressed, overall social and psychological life is seldom addressed due to increasing number of patients attending ENT clinics.

The problems that a laryngectomized patient faces are diverse and affect the physical, social and psychological well being. In our study, only 37% of patients felt that their problem had resolved fully with laryngectomy.

Other studies(8) have shown that following total laryngectomy, females have reported poorer outcomes in quality of life measures than males, with emotional and social functioning being particularly affected. However, in our setting, as most of the patients were male (96.6%) this issue could not be observed.

Clinical observation suggests that patients vary considerably in their ways of dealing with this new situation and in their ability to cope. Analysis of the acquired data showed that family support was judged most important for overcoming the problems of disease and treatment. (4)

In comparative literature (9), the composite score and overall QOL were higher following total laryngectomy and it was possibly due to the adequate multidisciplinary management. Therefore effective multidisciplinary management and follow up of these patients would bring their quality of life further up.

Therefore following the study, to fulfil this need, the ENT department of the National Hospital of Sri Lanka conducts multi disciplinary meetings, where each patient with a laryngeal cancer is brought forward to a team which consists of ENT surgeons, plastic surgeons, radiologists, pathologists, oncologists and oncology surgeons and the patient's problem is discussed among each other and subsequent management is planned. These meetings are held fortnightly.

Sri Lanka Laryngectomee Association also plays a major role as far as the care of laryngesctomised patients in Sri Lanka is concerned. Various social and religious events are organised to improve their social life and financial assistance is provided for palliative care.

As Sri Lanka is still a developing nation, most of these patients require assistance from supporting agencies to cope up with the alteration of their social roles. Therefore it is necessary to expand the social support and improve health care facilities for laryngectomised patients in our country.

Conclusion

Patients undergoing total laryngectomy at the National Hospital ENT department have numerous problems relating to their physical, social and psychological well being. These require long term follow-up and assistance with rehabilitation and financial support to improve their quality of life.

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PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

Not applicable

FUNDING

Not applicable

Figures

Key for figure 1.

1. Professional
2. Semi professional
3. Technical
4. Skilled.
5. Semi skilled.
6. Unskilled

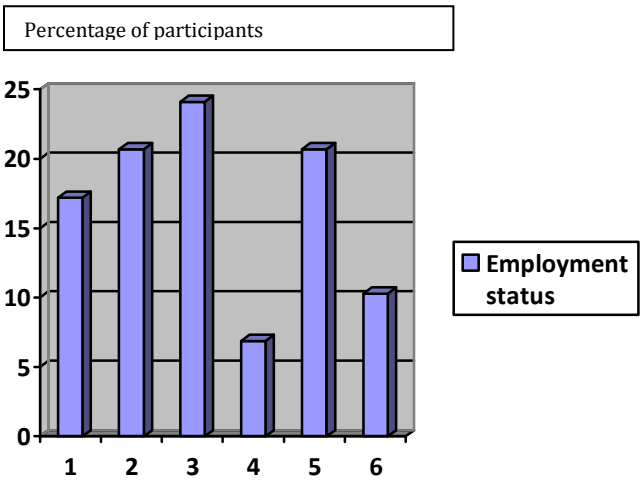

Figure1;Distribution of the employment status among the laryngectomised patients (percentages=29)

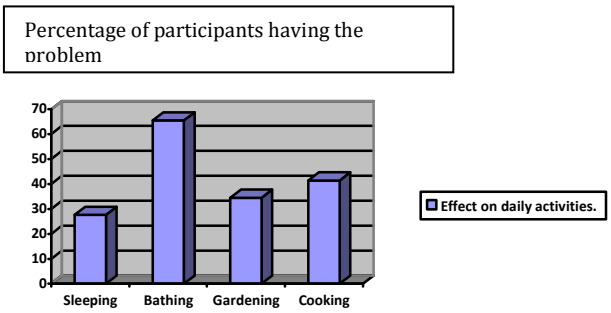

Figure 2; Effect of laryngectomy on activities of daily living. (Percentages)

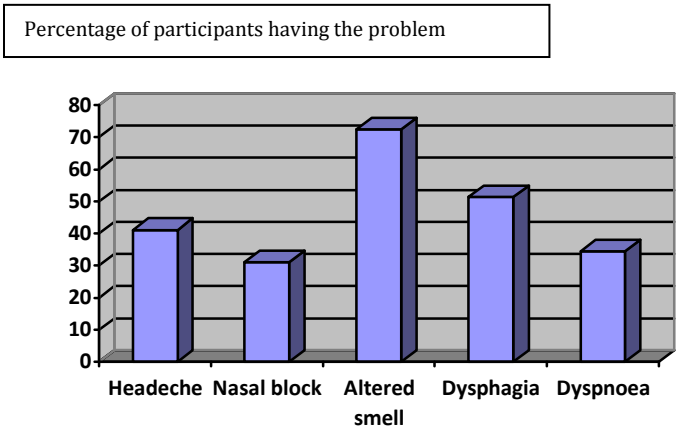

Figure3; Prevalance of common physical complaints among the laryngectomised patients. (Percentages)

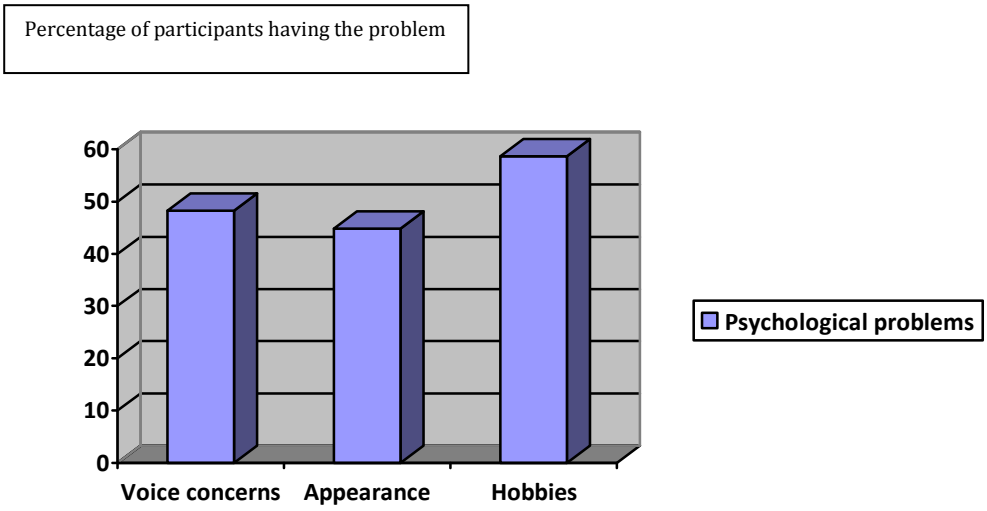

Chart 4; Psychological problems of the laryngectomised patients. (Percentages)