Objectives: The objective of this study is to understand trends in the Quality of Life and Self-image in patients undergoing an elective tracheostomy for non-malignant laryngoeotracheal pathologies. We will also discuss the relationship between life and patient demographics. Study Design: A prospective, IRB approved cohort study was conducted in a tertiary referral center. The SF-12, was used to assess the mental and physical health of patients. The 12 questions on this tool were scored to generate a Physical Composite Score (PCS) and a Mental Composite Score (MCS). A higher score indicates better health. Methods: The retrospective arm of the study included patients who presented to the senior author and had a tracheostomy for greater than 6 months. For the prospective arm of the study patients were recruited when they were to undergo an elective tracheostomy. Patients were recruited over a 12 month period. In the prospective the arm the questionnaire was administered every one to seven days pre-operatively and one to three weeks postoperatively. Variables analyzed included age, gender, marital status, education, occupation and other co-morbidities. Results: In the prospective group, mean PCS scores were higher in the post-trach period (38.226.9) compared to the pretrach period (35.411.5). However, there is a decline in the MCS score in the post-trach period (49±8.5) compared to the pre-trach period (55.4±18.3). In the retrospective group, mean PCS scores in this group was 28.5±12.3 while the mean MCS score was 40.5±18.3.

The presence of a tracheostomy can therefore lead to significant mental and emotional morbidity. Disfigurement of the anterior neck is associated with reduced body image perception, and may lead to anxiety and depression. This translates into lack of self care, poor interpersonal relationships and an overall diminished sense of well being. It is therefore important to understand the impact of this intervention on the Quality of Life of this patient population.

**INTRODUCTION**

A significant number of patients undergo tracheostomy for management of non malignant laryngoeotracheal pathologies. Common indications for this procedure include prolonged intubation, bypassing functional or anatomical upper airway obstruction, and inability to manage secretions. It is also performed as an adjunct to major head and neck trauma. Early complications of tracheostomy include hemorrhage, infection of the stoma and obstruction of the tube due to secretions. Patients also complain of dysphonia and a constant need to address stoma secretions and perform hygiene, which limits their physical function. It is often accompanied by a foul odor and pain at the tracheostomy site from the shield around the tube and the irritation produced by constant motion of the neck.

The presence of a tracheostomy can therefore lead to significant mental and emotional morbidity. Disfigurement of the anterior neck is associated with reduced body image perception, and may lead to anxiety and depression. This translates into lack of self care, poor interpersonal relationships and an overall diminished sense of well being. It is therefore important to understand the impact of this intervention on the Quality of Life of this patient population.

**STUDY DESIGN**

A combined prospective and retrospective IRB approved cohort study was conducted in a tertiary referral center. We used SF-12 to assess the mental and physical health of patients. The 12 questions on this tool were scored to generate a Physical Composite Score (PCS) and a Mental Composite Score (MCS). A higher score indicates better health.

**TOOL**

SF 12 health survey uses 12 questions to measure functional health and well being from the patient’s perspective. These questions are shown in the table below. Scoring is norm based, with a mean score of 50 and a standard deviation of 10.

**RESULTS**

Tracheostomy was performed for bilateral vocal fold paralysis, a benign laryngeal tumor and laryngeal stenosis. Mean PCS and MCS scores are shown in table 1. The difference between pre and post trach PCS scores was 2.8 (p=0.591). The difference between pre and post trach MCS scores was 6.4 (p=0.157).

Retrospective group:

Indications for tracheostomy included bilateral vocal cord paralysis, laryngoeotracheal stenosis and sarcoidosis. Mean PCS and MCS scores are shown in table 1. Post trach PCS scores were lower in the retrospective group compared to the prospective group, but the difference was not statistically significant (p=0.101). Post trach MCS scores were also lower in the retrospective group compared to the prospective group. Again, the difference was not statistically significant (p=0.293).

**CONCLUSIONS**

Planned tracheostomy is a beneficial intervention for patients with benign airway pathologies, since they experience an improvement in their physical health and the ability to perform activities of daily living. There is a decline in mental health postoperatively, which we attribute to worsening self esteem. Patients who did not undergo planned tracheostomy as seen in the retrospective group, experienced a decline in their physical and mental functioning. This can be attributed to the lack of understanding of the benefit of the procedure and poor preoperative counseling. We recommend perioperative psychological assessment to improve mental health in patients undergoing elective tracheostomies.

**REFERENCES**