ORIGINAL RESEARCH PAPER

ENT

ASSESSMENT OF PATIENT SATISFACTION FOR CERVICAL SCAR POST THYROIDECTOMY

KEY WORDS: Thyroidectomy, Midcervical Scar, Scar Consciousness, Satisfaction With Appearance.

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ABSTRACT

Background:- Thyroidectomy is a common procedure performed for thyroid disease these days. Plan of surgery depends on histology, location and size of lesion. Thyroidectomy is preceded by conventional midcervical skin crease incision, performed by Theodor kocher in late 1870, to advanced minimal invasive technique. Minimal invasive techniques have certain upright from conventional surgery. This study aims to study patient satisfaction for cervical scar with thyroidectomy conventional kocher's incision. **Material & Method:-** Sixty five 65 patient underwent thyroidectomy from September 2017 to February 2020 at American international institute of medical sciences Udaipur, Rajasthan. Patient clinical data retrospectively reviewed and patient scar satisfaction acquired telephonically by using validated patient scar assessment questionnaire and data analyzed statistically. **Result:-** Around 95% patients show high level of satisfaction in the study having scores consistent with scar satisfaction after conventional thyroidectomy. Majority of patients were satisfied with the appearance of their scars, around 5% of patients (n=3) reported significant levels of self consciousness. **Conclusion:-** Majority of patients were satisfied with their scars post thyroidectomy. Despite high level of satisfaction there are people shows significant levels of consciousness. There is need of further study to decide certain factor whether encouraging minimal invasive technique over conventional thyroid surgery.

BACKGROUND:

Thyroidectomy is most common surgery performed at many surgical institutes, using conventional Kocher's incision for surgery. Conventional kocher's incision developed by theodor kocher in late 1870(1). Kocher used mid cervical incision, two finger breadth above sternal notch as skin crease incision as it gives favorable outcome cosmetically.

Since with advancement of techniques minimal invasive surgical techniques are coming in vision of surgery(2), thyroid surgeries are also not away from becoming part of this minimal invasive surgical technique as giving excellent results less post operative pain, better scar result, reduced hospital stay, overall less off from working place giving monitory benefit(3-5).

With all the benefits surgical techniques are fuelled towards minimally invasive techniques. With advancement of techniques in all fields, these are not readily available in small surgical setup, despite of certain benefits over conventional surgery. They still preferring conventional kocher's incision (6-8).

The aim of study is to assess satisfaction of patient regarding midcervical surgical scar.

Materials & methods:-

This study was conducted 65 age and sex matched cases of thyroid disease, underwent thyroidectomy surgery in department of ENT-HNS, American Institute of Medical Sciences, Udaipur, Rajasthan between February 2017 to September 2020.

All the history and details recalled retrospectively from institute's records. The entire verbal and informed consent took before given the questionnaire data of validated patient scar assessment questionnaire.

All the cases of revision surgery, neck dissection, absent o negative drain, post surgery RT/Iodine therapy were excluded from surgery.

All patient given consent for study administered patient scar assessment questionnaire telephonically in view of covid pandemic. And response were recorded and analysed

statistically.

We have used patient scar assessment questionnaire to collect response regarding satisfaction post surgical mid cervical scar, which is a validated scar assessment tool.(9) Which consist of five subscale symptoms, appearance, scar consciousness, satisfaction with symptoms, and satisfaction with appearance(5). Each of these subscales is independent of each other designed in Patient Scar Assessment Questionnaire, so we can use them separately. Symptom subscale is the only subscale which is not validated properly and need further evaluation.

Here we used three of five subscales scar consciousness, satisfaction with symptoms, and satisfaction with appearance.

The scar consciousness subscale consist o 6 questionnaire, satisfaction with symptoms subscale consist of 5 questionnaires, and satisfaction with appearance consist of 8 questionnaires. Response of each questionnaire recorded on likert type of scale, which ranges from one to four. One is recorded as minimum response as very satisfied and our as maximum response as very dissatisfied. So response for scar consciousness subscale ranges from 6 to 24, for satisfaction with symptoms subscale 5 to 20, and for satisfaction with appearance 8 to 32. And total response for patient scar assessment questionnaire ranged minimum 19 to 76 maximum. The higher response therefore represents the decreased satisfaction result of scar cosmetically.

All the data analyzed statistically using one way analysis of variance (ANOVA) and independent t test for mean.

Results:-

Total 65 patients enrolled in the study out of which 60 females and 5 were male patients. Youngest participant was 16 year old and oldest one was 62 year old. Total 57 (87.69%) patients underwent for hemithyroidectomy, 3 (4.6%) patients for subtotal thyroidectomy and 5 (7.6%) patients underwent for total thyroidectomy. 2 (3%) patients were operated or malignancy and 63(97%) pateints operated for benign lesions.

Male female ratio:-

M:F = 1: 12

Diagram 1:- Male female ratio

Histopathological distribution:-

Table 1:- Distribution according histopathology

Benign	Malignant
2	63

Distribution according surgery performed:-

Table 2:- Distribution according surgery performed

Hemithyroidectomy	Subtotal thyroidectomy	Total thyroidectomy
57	3	5

Results of PSAQ:-

Around 95% patients show high level of satisfaction in the study having scores consistent with scar satisfaction after conventional thyroidectomy.

Diagram 2:- Distribution of subscale satisfaction scores with various parameters, (x axis shows number of persons, y axis shows subscale categories)

The mean score for scar consciousness subscale was 7.76 ± 1.88 and for satisfaction with symptoms subscale 6.13 ± 1.45 and for satisfaction with appearance 10 ± 2.35 . The mean total PSAQ score was 23.90 ± 5.35 , out of a total maximum score of 76, and scores ranged from 19 to 41. A score of 38 or greater was considered indicative of patient dissatisfaction with scar outcome. There are 3 patients above value of 38, shows dissatisfaction for outcome of thyroidectomy surgical scar. 3 patients showed highly consciousness for surgical scar.

There is no variations in outcome of surgical scar depends on gender, histopathology and type of surgery performed.

DISCUSSION:-

Conventional thyroidectomy is the procedure for thyroid ailments, commonly performed by Kocher's incision at many surgical setup (1). Conventional thyroid incision proposed by Kocher leads prolonged hospital stay, post operative pain and concern for post operative surgical scar. This has begun a drive towards newer and advanced modalities like minimal invasive surgery, robotic surgery, trans-axillary, transoral approach (10). These advanced techniques are not also readily available at small surgical setup (17) where conventional thyroidectomy can easily perform.

This study shows satisfaction of patients post conventional mid cervical incision thyroidectomy by Kocher. The findings of this study correlate with others which found that overall patient scar satisfaction after conventional thyroidectomy incision is very high (11-13,24).

In this study 3 patients were above value of 38, shows dissatisfaction for outcome of thyroidectomy surgical scar and 3 patients showed consciousness for surgical scar.

This study showed that there is no variations in outcome of surgical scar depends on gender, histopathology and type of surgery performed which was in discordance with studies that demonstrated difference in scar satisfaction based on patient gender, with female patients generally having a greater degree of dissatisfaction compared to males (11,14).

In this study we used for closure of wounds continuous subcuticular prolene suture for skin closure. Data in literature shows that the method of closure chosen with regards to absorbable and non-absorbable sutures does not significantly impact patient outcome of the scar (15,16). Some factors that have been shown to improve scar outcomes are marking of patients in the upright position, avoiding elevation of subplatysmal flap to decrease postoperative neck edema and healing times, and avoidance of drain usage where possible (2). Minimally invasive surgery in thyroidectomy is move around the absence of a cervical incision along with other benefits of post-surgical recovery time and improved pain.

These procedures are generally more expensive, than conventional surgical method and are not always available in small health care systems (17).

The role of cervical incision is clearly not mentioned literature (3, 7, 12, 18-21). Patients are more concerned is more about post operative complications like voice change, complete removal of disease (14). These above factors were beyond the scope of this study there may also be a consideration of level of education, marriage status, parity and socioeconomic factors that may play a role in patient satisfaction and perceived scar outcomes (13). The data collected was also self-reported over telephone by patients and did not have an objective component such as scar length or observer assessment as would be considered in other scar assessment tools (22,23).

CONCLUSION:-

Majority of patients (95%) show high level of satisfaction post thyroidectomy with conventional midcervical incision despite significant level of scar consciousness in some patients. The role of minimal invasive surgery directly related to post operative stay in hospital indirectly to finance as less off from work place and less discomfort. There is need of further study to decide certain factor whether encouraging minimal invasive technique over conventional thyroid surgery.

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