Study Of Patient Satisfaction For Gynaecomastia Correction; Excision Vs Liposuction: A Review Of Our Experience: Questionnaire Based Study

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Abstract: Background: Gynaecomastia is a common problem in the male population with a reported prevalence of up to 36%. Many treatments have been described but none have gained universal acceptance. We reviewed all gynaecomastia patients operated on by one consultant; liposuction done in all cases over a 1-year period to assess the morbidity and complication rates associated with the procedure. Material And Methods: Clinical notes and outpatient records of all patients who underwent gynaecomastia correction between 01/11/2018 to 31/10/2019 were retrospectively reviewed. A modified version of the Breast Evaluation Questionnaire was used to assess patient's satisfaction with the procedure. Result: Twenty two patients and were operated on during the study period. Patients with bilateral Gynaecomastia and Grade III (18 patients) were included in the study. Half the patients underwent liposuction alone and the other half underwent excision alone. Twelve operated breasts (6/18 , 33.3%) experienced some form of complication. Minor complications included seroma , superficial wound dehiscence post and wound dehiscence with minor bleeding not requiring theatre. Patients who developed haematomas required evacuation in theatre. No cases of wound infection, major wound dehiscence or revision surgery were encountered. All (100%) returned the patient satisfaction questionnaire. Patients scored an average 4.5 with regards comfort of their chest in different settings, 4 with regards chest appearance in different settings, and 4 with regards satisfaction levels for themselves and their partner/family. Overall complication rates among the excision only group was the highest (44.4%) as compared to the liposuction only group (22.2%).Conclusion: Gynaecomastia is a complex condition which poses a significant challenge to the plastic surgeon. Despite the possible complications our case series demonstrates that outcomes of operative correction can be favourable and yield high levels of satisfaction from both patient and surgeon. The classical excision method had slightly higher patient satisfaction rates despite higher complication rates. [Makadia M Natl J Integr Res Med, 2020; 11(5):17-20]

Key Words: Patient Satisfaction, Gynaecomastia Correction, Excision, Liposuction

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Introduction: Gynaecomastia is a common problem in the male population, particularly in young adults, with a reported prevalence of up to 36%[1]. The term refers to a benign female-like enlargement of the male breast resulting from an increase in ductal tissue, stroma and/or fat.

Enlarged breasts can cause anxiety, self-consciousness and embarrassment, functional problems and psychosocial discomfort and fear of malignancy. It is not surprising; therefore, that gynaecomastia is the most common cause for seeking medical advice for a breast condition in men. The two treatment options are medical therapy and surgical removal. Medical therapy is probably most effective during the active proliferative phase of the condition.

If a trial of medical treatment is unsuccessful or the gynaecomastia has been present for several years, then surgical treatment is likely to be required.Surgical options for gynaecomastia include liposuction, open resection and resection with skin reduction. Outcome studies of surgical correction have generally shown high levels of satisfaction[2,3]. However, Ridha et al. Demonstrated only a 62.5% of patients within a cohort of 74 patients were 'satisfied' or 'very satisfied' with their surgery[4]. Surgery is, therefore, not a decision to be taken without careful patient assessment. Various techniques have been described over the years, but no technique has yet gained universal acceptance.

We aimed to review all gynaecomastia patients operated on under the care of one consultant in a regional unit over a 1-year period. We aimed to assess the morbidity and complication rates associated with the procedure and to determine whether certain surgical techniques produced better outcomes.

Material & Methods: Operating procedure notes, clinical notes and outpatient records of all patients who underwent gynaecomastia correction during the period 01/11/2018 to 31/10/2019 were retrospectively reviewed. For the purpose of this study, we considered laterally

operated breasts in an individual as an individual case.

The grade of gynaecomastia, the presence of skin excess, causative factors, duration of symptoms and surgical procedure were recorded. Only Grade III bilateral Gynaecomastia patients were included in the study. Short-term and long-term minor and major complications, poor results and revision rates were recorded and analysed.

Operative Techniques**:** Pre-operatively, all patients were marked in the upright sitting position. The breast tissue was infiltrated, via a single stab incision, with a solution of normal saline, 1% lignocaine and 1:1000 adrenaline. All surgery was performed under general anaesthesia, and patients received one dose of intra-operative intravenous antibiotics. Following the procedure, a pressure dressing consisting of gauze was applied and held in place with microfoam tape. Patients were instructed to wear a pressure garment day and night for six weeks. The following surgical techniques were used singly or in combination.

Liposuction: Liposuction was performed following a superwet/tumescent infiltration of the previously mentioned infiltrate. The cannula was continuously moved in fanlike long strokes, starting deep and working superficially. Special effort was made to disrupt the inframammary fold where this was well formed. The endpoint was determined by loss of tissue resistance, aspiration volume, appearance of the aspirate and treatment time.

Open Excision With Skin Reduction: A semi-circular incision was made along the inferior margin of the nipple-areola complex. Dissection with scissors commenced inferiorly to the border of the breast, then proceeded in a deep plane to the upper limit of the breast. Dissection was continued superiorly to the incision leaving a 1 cm disc of breast tissue on the under surface of the areola. Subsequently, the breast tissue was excised through the semi-circular incision. Redundant skin was excised.

Questionnaire: No validated outcome assessment questionnaire exists specifically for gynaecomastia correction. We, therefore, created a three-item questionnaire, which was sent to all patients who underwent surgery to ascertain their satisfaction with the procedure. This was based on the more comprehensive 55-item Breast Evaluation Questionnaire,[5] which is a validated assessment questionnaire designed to assess patient satisfaction with breast and quality-of-life outcomes following a variety of breast surgery procedures. A similar proforma was used by Ridha et al.[4] The proforma asked patients to rank their satisfaction levels with their surgery in relation to three factors.

The first question related to patients' comfort with their breast/chest in different settings (intimate, social and professional). The second question related to the degree of comfort with their breast/chest appearance.

The third question asked patients to rank the satisfaction level for themselves and their partner/family. Patients were asked to respond on a 5-point Likert scale (1 = very dissatisfied; 2 = dissatisfied; 3 = neither; 4 = satisfied; 5 = very satisfied). All patients, returned the questionnaire (100%).

Results: Twenty two patients out of which 18 who had bilateral Gynaecomastia were included in the study and 4 with unilateral Gynaecomastia were excluded. A total of 40 breasts were operated in total and study included 36 breasts.

Patients underwent either liposuction alone (18 breasts – 50%) or excision alone (18 breasts – 50%). 12 operated breasts (33.3%) experienced some form of complication. Minor complications included seroma , superficial wound dehiscence with minor bleeding not requiring theatre.

Patients who developed haematomas required evacuation in theatre. No cases of wound infection, major wound dehiscence or revision surgery were encountered. All (100%) returned the patient satisfaction questionnaire.

Patients scored an average 4.5 with regards comfort of their chest in different settings, 4 with regards chest appearance in different settings, and 4 with regards satisfaction levels for themselves and their partner/family.

Overall complication rate was 33.3%. Overall complication rates among the excision only group was the highest (44.4%) as compared to the liposuction only group (22.2%).The cohort characteristics, outcomes and morbidity are illustrated in table 1.

Table 1: Overall Complicate Rates Among The Excision Only Group And Liposuction Only Group

Patient Details	Results
AGE AT SURGERY,MEAN	24.5 Years (13-39)
Duration of Symptoms ; MEAN	5.3 Years(1-20)
Grade of Gynaecomastia	Operated Breasts
III	36
Liposuction	18
Excision	18
OPERATIVE TIME ; MEAN	76 Minutes (30-180)
Hospital Stay ; MEAN	1.6 Days
Number Of Complications (BREASTS)	12
Morbidity	
Complications In Liposuction	(2/9 patients) 22.2%
Complications in Excision	(3/9 patients) 33.3%
Number of Cases Complicated	(5/18 patients) 27.7%

Discussion: Surgery is the mainstay of treatment for gynaecomastia and although a wide range of surgical techniques have been described, surgeons often find it difficult to choose the technique that will achieve the best results for a given patient.

Gynaecomastia has peaks in incidence within three age groups. Although the highest prevalence is among middle-aged and older men (50-80 years old), the oldest patient in our cohort was 39 years old. This may relate to the fact that the most common trigger for surgery was emotional distress, and middle-aged/older men may be less affected by this stimulus compared to the younger age group.

In our series, Bilateral grade III patients undergoing excision experienced the highest complication rate (33.3%) as compared to Bilateral grade III patients undergoing liposuction (22.2%).

Outcome studies of gynaecomastia correction have shown varying levels of satisfaction with the results of surgery with Fruhstorfer *et* al.[2] showing high levels of satisfaction while Ridha et al,[4] showed much lower levels. Our series demonstrated generally high satisfaction rates amongst both patients and surgeon. Eleven patients (37.9%) had their outcome classified as 'excellent' at their second follow up appointment by the operating surgeon, 16 patients (55.2%) as 'good', 1 (3.4%) as 'satisfactory' and 1 (3.4%) as 'poor'.

In Liposuction group the patients were generally 'satisfied' with their outcome with regards comfort and appearance and self confidence. In contrast, patients who underwent excision were generally 'very satisfied', returning the highest overall scores for satisfaction, chest shape and self-confidence levels.

Conclusion: Gynaecomastia is a complex condition, which poses a significant challenge to the plastic surgeon. The initial treatment should aim to correct any underlying abnormality or discontinuing any medications that may be contributing to the condition. Although the efficacy of medical treatment has not yet been well established, conservative measures should be considered prior to surgery.

Gynaecomastia if present for more than two years is unlikely to regress spontaneously or with medical treatment due to the tissue becoming irreversibly fibrotic[3]. In these cases, surgery remains the mainstay of treatment. Despite many operative techniques being described, the principal aims of surgery remain to correct the deformity, restore normal body contour and image, maintain the viability of the nipple-areola complex and avoid excessive scarring[5].

The surgeon needs to retain flexibility, because often a final assessment of consistency, skin excess and quality is possible only during surgery. Liposuction should always be used in diffuse or large breasts. Following liposuction, the consistency of the breast should be examined,

and open excision is performed if a residual lump or firmness is present. Following liposuction and open excision, the skin excess settles to some degree depending on the skin quality. Skin excision is indicated if there is still noticeable skin excess.

Although there are significant possible complications associated with surgery, our case series demonstrates that with even with careful planning the overall satisfaction of patients with all three parameters mentioned above was higher despite slightly higher complication rates.

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