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Reserach Article

Can be Seroma a normal event in Breast Surgery? Analysis from Survey in Plastic Surgery Safety Conference

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Abstract

Introduction: Breast Surgery especially augmentation is a common procedure worldwide. Literature reports relationship between chronic seroma and Anaplastic Large Cell Lymphoma (ALCL) has increased. Recently we reported the first case in Mexico. Risk factors should be evaluated. Seroma seems to be a common event after this type of surgery. Chronic seroma seems to be most common symptom in ALCL.

Methods: Survey was conducted during Security Conference in breast implant augmentation, to know features as breast implants ratio in private practice of plastic surgeons, type of implant used, surgical technique and complications. Descriptive statistics including measures of central tendency were estimated.

Results: 72 members answered the survey. Implant placement is a procedure performed frequently. Preference is textured implants with volume between 300cc and 360cc. The most common complication was seroma. Reoperation was related with capsular contracture and patient no satisfaction.

Discussion: Seroma is a common complication. Possible relation with biofilm and Anaplastic Large Cell Lymphoma should be evaluated. Lymphoma is not a common finding in breast implant but long lasting infection can be considered as risk factor. Measures to prevent seroma should be proposed. Analysis from the type of textured in the coverage of the implant should be evaluated.

Conclusion: This information allows us to take further action to direct sessions, courses and conferences, to decrease the frequency of seroma and prevent complications being one of the procedures most frequently performed by the membership.

Introduction

Breast implant surgery is a common procedure that has passed for different stages. It became one of the most common procedures worldwide [1]. It is important to know different information about preferences of surgical incision, pocket dissection, type of implant or common complications. Many conferences, articles and meeting have been organized about this topic. More information needs it in our population about this type of procedure.

Methods

A survey was conducted in the members of the Mexican Society of Plastic Surgery that participated in Security Conference during the International Meeting of our Society last February 26th, 2016 in Veracruz, México. The survey was multiple choice questions. The questionnaire addressed information as type of implant, surgical technique, complications and aspects about the professional practice and breast implants. All answers were collected with the help of Excel program. Descriptive statistics including measures of central tendency were calculated (Table 1).

Results

Total of 72 members accepted to answer. No economical compensation was offered. About the percentage related with breast implants in their professional practice: 47% (34) answered that more of the 20% of the practice is related with breast augmentation, 29% (21) between 11 and 20%, 15% (11) between 6 and 10& and only 8% (6) less than 5%.

About the frequency of this type of procedure: 29% (21) do the procedure twice a month. 23% (17) once a month, 23% (17) once a week and 23% (17) more than one in a week. Most of the members prefer round implants 91% (66). Only 8% (6) prefer anatomical. About profile of the implant: 54 % (39) prefer high, 38% (27) extra high, 8% (6). Textured implant is most preferred with 86% (61),

Table 1: Survey about breast implants.

	Survey
1.	What percentage of your practice occupy breast augmentation?
a.	0 a 5 %.
b.	6 a 10%.
c.	11 a 20 %.
d.	Más del 20%.
2.	How much breast augmentation do you do at month?
a.	More than 1 at week.
b.	One per week.
c.	One every two weeks.
d.	One at month.
3.	What type of breast implant do you use more often?
a.	Rough
b.	Polyurethane
c.	Textured
4.	What is the shape that you prefer the most?
a.	Round
b.	Tear drop
5.	What type of profile do you use the most?
a.	Low
b.	Moderade
c.	High
d.	Extrahigh
6.	What is the most common surgical incisión?
a.	Periareolar
b.	Inframammary
c.	Axilar
d.	Umbilicus
7.	What plane do you use more often?
a.	Subglandular.
b.	Subfacial.
c.	Dual
d.	Submuscular
8.	What type of size do you use the most (volumen)?
a.	200cc to 280cc.
b.	300cc to 360cc.
c.	More than 360cc.
9.	What type of complication is the most common?
a.	Infection
b.	Seroma.
c.	Hematoma
d.	Implant exposure
10.	What is the most common cause of reoperation in breast augmentation?
a.	Assymetry
b.	Capsular contracture
c.	No satisfaction
d.	Rippling
11.	What is the frequency of reoperation in your practice?
a.	0%.
b.	1 to 5 %
c.	6 to 10%
d.	11 to 20%
12.	Have you seen any case of chronic seroma (more than one year after surgery)?
a.	Yes
b.	No
13.	Do you take in count anatomy of the thorax and breast tissue in your patients?
a.	Always
b.	Sometimes
c.	Never
14.	When you have a capsular contracture that cause pain and is clinically evident, what type of treatment do you recommend?
a.	Non surgical
b.	Capsulectomy
c.	Capsulotomy
	Have you modified your practice when the meeting and conferences offered by the Security Commite?
a.	Yes
b.	No.
c.	Partially
15.	Have you notified complications or adverse event to our committe?
a.	Yes
b.	Sometimes
c.	No.

following rough 12% (9) and polyurethane 2%. Mostsurgeons guided the decisionin basis of the thorax and breast of the patient: 83% (59), 8% (6) never take in count and 9% (7) sometimes.

The range of volume that most of the surgeons preferred is from 300 to 360 with 62% (45), 14% (10) from 200 to 280 and 26% (17) more than 360.About the surgical incisión58% (42) preferedinframammary, 40% (29) periareolar and 2% axilar. The implant is located under the gland in 31%, under the fascia 26%, under the muscle 21% and dual plane 22%.About capsule contracture 51% (37) remove capsule (capsulectomy), 36% (26) capsulotomy, 12% (9) prefer non-surgical treatment. Most common complication is seroma 68% (49), hematoma 15% (11), implant extrusion 11% (8) and infection 5% (4).

Most of the surgical reoperation was related with capsule 55% (40), patient no satisfaction 15% (11), asymmetry 8% (6), rippling 4% (3).

Taking in count reoperation: 72% (52) mentioned that rate of reoperation was between 1 to 5%, 5% (4) between 6 to 10%, 8% (6) report more than 20% of reoperation and 14% (10) reported no reoperations. 52% (35) of the participants have modified their surgical approach and clinical practice related with the information discussed by the Security Committee and 20% (14) have modified in a partial way. Most of our members have not notified their complications 72% (49).

Discussion

The decision about breast implant size, position, type or shape depends of many variable that take in count the body of the patient and sometimes cannot satisfied her expectations [2]. The thorax and breast tissue of patients in Mexico is different from other parts of the world as USA or Europe. Although patient can be different most of the surgeons prefer size between 300 or 360 cc, probably bigger size than 360 in our population can contribute reoperation and malposition in long term.

Periareolar incision was an important choice according with results from the Survey. Literature benefit inframmamary incision and texture implants [3-5].

Most of the members report high rate of seroma. Seroma can be involved in biofilm formation [6]. Biofilm holds bacteria that can be related with capsule contracture [7]. Some type of bacteria is reported in cases with Anaplastic Large Cell Lymphoma [8]. Not all the patients with seroma will develop this problem but it is important to mention that the possible links have been reported and risk factors and possible cause are under research [9]. In a bigger on line survey in 2014from 340 participants, 64% (191) mentioned that the most common complications were seroma.

It is not clear if seroma can be considered a normal event in the early posoperative period. Seroma has been study in breast surgery especially after mastectomy combined with node dissection. It is recognized that surgical trauma can increased it, probably with over use of cauterization and aggressive surgery with excessive blood lost [10].

More information is needed about seroma prevention. Drains are possible solution. Infection risk should be evaluated. Routine drainage in breast augmentation can be considered for two or three days [1,11].

The risk of infection can be decreased as in any surgery with the help of simple measures as hand washing, keeping clean surgical incisions and coverage with clean gauze. Antibiotics can help to decrease biofilm formation although is not clear timing and duration [1,6,7].

In case of implant exposure it is recommendable to consider removal of the implant. It is a doubt if small exposure can be closed in the office with proper care. Evidence doesn´t support this believe [10,11]. Expert agrees to try it, if patient conditions are satisfied as healthy patient and clean surgical incision.

In the other hand most of the surgeons are not comfortable using fat graft in aesthetic procedure. In reconstructive surgery is not a doubt about the possible benefit. Probably in aesthetic surgery calcification can difficult cancer screening [12-14]. In case of capsular contracture it is recommendable to remove capsule and to use different plane [15]. Survey shows no agreement in this matter. Surgeons can try less aggressive treatment at the begging without addressing original trouble.

Reoperation in breast implant it can be related with different reasons as for example capsular contracture, ptosis or ripling. Lifespan of breast implant is confusing matter [16]. Companies can make information about life guaranteed but patient should be informed about possible implant rupture, chronic seroma, ptosis or capsular contracture [17]. Informed consent should mention that replacement should be considered, timing can be around 14 to 15 years. Regular control with physician is advisable.

Capsular contracture, pain or rippling should be considered when replacement is evaluated. Surgical plan can considered change of plane or additional procedure as dermal matrices [18,19]. Cancer screening should be emphasizes, regular mammogram or ultrasound should be encourage no matter breast implant location or size.

Seroma was the most common complication. It is not clear what the best evidence to decrease this problem is? Antibiotics and use of drains can get some benefit. As we know bacteria can life for long time in the biofilm, and seroma can predispose this condition. Chronic seroma has been involved in ALCL [20]. We are not sure if both condition: acute or chronic seroma share the same etiology or they are same problem with different stage. Carefully planning and meticulous surgical technique are important to decrease morbidity, reoperation and patient satisfaction.

Conclusion

Breast implant surgery is a common procedure. Texture implants have become important choice. Size from 300–360, round, high and extra high profile, surgical incision in the lower inframmamary border and placement under the muscle are common preferences in the survey. Seroma was the most common complication. Future directions to identify and treat acute and chronic seroma should be proposed. Acute seroma can be associated with biofilm. It is not clear the etiology of conditions as ALCL. This information allows us to take further action to direct sessions, courses and conferences, to decrease the frequency of seroma and prevent complications being one of the procedures most frequently performed by the membership.

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