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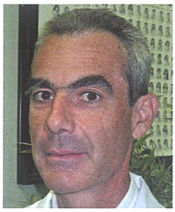
SCIENTIFIC ARTICLES

Breast lipoestructure and fill the lower pole: "Difficult breast"



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RESUME

The breast augmentation using autologous fat it´s not new, the first was in 1985 by Czerny. So, many things have change until now.

The first thing have changed it´s the technic of lipostructure that have improved the results and durability of fat graft.

The second thing, the technic´s indication. Now we know that we can get, very good results in fill up the inframmary pole and intermammary sulcus.

But it´s not a good way to fill the mammary upper pole.

For this reason we speak in this work, about difficult breast in three terms.

Separate breast, pseudotuberous tuberous and asymmetric breast because this three terms have something in common, a deficit of fill in lower and internal zone of the breast.

Key words: Mammary fat graft, Tuberous and difficult breast.

INTRODUCTION

Probably the first application of fat graft (Lipostructure) it´s in difficult breast.

Like difficult breast kind: pseudo tuberous and tuberous breast, asymmetric breast and very separated breast.

This is, in this way because the mammary implant don´t resolve the most of this problems.

The mammary implants has a determinate volume and size that don´t give the expected results by the patients.

Introduced the article now, a little of mammary fat graft history:

The first fat graft in breast was in (1895) by Dr Czerny (1). He used a large lipoma to fill a defect in the breast following resection of a benignly mass. The transplanted breast, however , appeared darker in colour and smaller in volume than the opposite breast. After him many others have made this technic like Dr. May (1941) (2), using free fat autograft. Peer (1956) (3) used a dermis fat graft . Shorcher (1957) (4) reported autogenous free fat tansplantation to treat hypomastia .He noted that if the graft was in several pieces, it would receive better nourishment for the recipient site. Bircoll (5) (1984) was the first to inject autologous fat from liposuction around the breast. He used small droplets of fat (1 ml for each deposit), with a maximum of approximately 130 ml. After him others surgeons made this technic until 1992 the year in that (APSPRS) American Society of Plastic and Reconstructive Surgeons produced a position Statement, which stated that the society "strongly condemns the use of fat injections for breast enlargement", warning that the procedure may hamper the detection of early breast cancer or result in a false –positive cancer screening.

For this reason also should be prohibited technics like breast reduction where late microcalcifications appear in more than 30% of the operated patients or mammary implants that in this years have up more to 40% of capsule contracture whit calcifications . But only was prohibited the fat graft in breast.

It´s for these reasons that these technic never it had the agreement of majority of plastic surgeons.

After of that, arrived Sydney Coleman in 1996 (6) and the fat graft gradually began to have some prestige, but must have passed some years until fat graft mammary implant "mammary lipostructure" began to be accepted. Finally the American Plastic Surgery Association in 2003 made an release supporting this technic.

Actually I think that it´s an important therapeutic option and probably it will be more important in the future.

METHODS AND MATERIAL

The fat graft isn´t a good way to full fill the breast upper pole (7). Whenever it´s a perfect technic to fill the lower pole , infra-mammary fold or inter-mammary space.

For that reason i think that it´s the best options in cases where we have to fill these areas.

In relatión with this topic I would like to do some considerations:

The first reason by we get a good fill in lower pole, it´s the same reason by we don´t get a good fill in upper pole and I think that it´s in relation with cooper ligament´s of breast.

It´s a fact ,that when we put the fat graft in breast in very small pieces "lipostructre technic" we make a serious damage in cooper ligament´s by the "criss-crossing movement" of infiltration´s canulae in breast tissue.

This irruption of cooper ligaments that it´s the first structural breast support , it´s the cause of the breast fall. (photo)

This effect next to a fill lower pole, it´s very interesting in tuberous breast treatment, or in some cases of asymmetric breast.

However it´s also the effect by, when you put fat graft in upper part of breast for several times, you don´t get a full fill upper pole. Otherwise some times you get a larger breast fall, like final result.

We divide in three different application, the fat graft in the lower pole of difficult breast:

- Very separated breast.
- Tuberous o pseudo-tuberous breast.
- Seriously asymmetric breast.

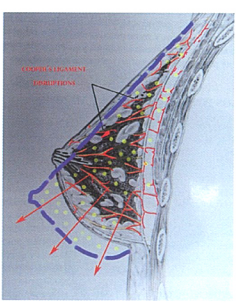
The account of total patients was 12. Six ,for distant breast. Four for tuberous or pseudo-tuberous breast and two for seriously asymmetric breast.

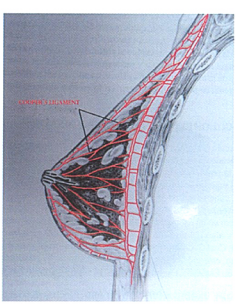
All these patients was young people with aged 18 to 35 years old. The age average was 28.3 years old.

All this operations were by aesthetic results.

The harvesting zones have been wherever in the same places like a regular liposuction.

The infiltration technic is the Coleman method with some little differences that discuss below.





We use for the fat graft harvest , a 3 mm cannula Acelerator model. (Byron Brand) and for the infiltration, a Coleman blunt cannula of 1.8 mm (Byron Brand) and sometimes only when necessary an aggressive Sharp Coleman 2mm model (Byron Brand) or a curve flat tip Khoury cannula (Marina Brand) for grafting fat in subcutaneous tissue.

The local anesthesia is tumescent technic (Lidocaine 5 ml to 5% and 0.5 mlg of adrenaline in 500 ml of physiological serum) in harvesting areas, (1\1 relation. 500ml of tumescent anesthetic for 500 ml of suction) while in grafting zones we used only a Little amount of local anesthetic solution for to get vasoconstriction (1\10 relation).

The local anesthesia technic is ever accompanied of deep sedation by an anesthetist.

The amount of harvesting fat graft to infiltrate to 250 ml by each breast (500 ml total). it´s about 1000 ml, since they are lost in 500 ml centrifugation and decanting.

We divide the process in two chirurgical times. We make in first time an liposuction of two zones (abdominal and thighs for example) to get 500 ml of fat graft and infiltrate a total of 250 ml per breast and time.

In our experience you don´t get better results if you infiltrate more volume and it will increase the complications instead.

We make liposuction by empty pump in a 0.6 bar. Because if you use a high suction pressure will be damaged tissue.

The fat obtained is collected in a sterile container and then is subjected to a process of decantation and centrifugation in centrifuge (Orto Alresa brand, Digitor 20 model) that allows centrifuge 4, 60 ml syringes of fat at once.

We use between 1800-2200 p.m.r for three minutes (the centrifuge´s radius is 10 cm).

This is a Relative Centrifugal Force (R.C.F) of between 400-525 (G).

The varying use (R.C.F) depends on the cell fragility.

If after the first centrifugation get much oil in the supernatant decrease the (R.C.F) to a suitable graft.

SURGICAL TECHNIC

I harvest zones we practice conventional liposuction anywhere.

When we infiltrated fat graft in breast we used the "lipostructure" Coleman technic.

This technic is the better way of lipo- filling and give us good and permanent results over the time.

We make the infiltration in two times because we get the better results and minimally complications, permanent volume and not distortion of mammography pattern.

We use four spots of infiltration or over. Two points in upper part of breast and one or two others in lower part.

We infiltrated in crisscrossing mode in three or four points.

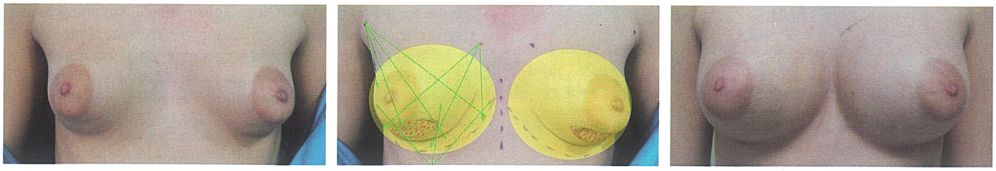


Fig. 1, 2, 3. Surgical technique: 3 crisscrossing points at least in fat graft, and rigottomy zone´s in lower pole. Sometimes we have added periareolar mastopexy. Pre and post.

We do subcutaneous tissue infiltration in first step: Also in deep glandular breast tissue included and finally in pectoralis fascia.

The amount is 250 ml about, for every session and the time between sessions is over three months.

In tuberous or pseudo tuberous breast we made Rigottomy (8) frecuently in lower pole of breast, and some times also we practised periareolar mastopexy.

We use intra and postoperative antibiotic (cephalosporin), anti-inflammatory and analgesic like (ibuprofen), because is not a pain full postoperative.

The patients are dressing, with acupressure clothes during three weeks.

We recommended lymphatic drainage massage for four weeks, at the rate of two for every week.

We practice mammography six months and recently ultrasound eighteen months after the operations in every patients.

RESULTS

The obtained results in the 12 patients operated have been satisfactory. If you compared with an implant that it´s the other way to get volume in breast with this technic, I think that the results are better in all cases.

The fat graft let us to work volume and shape in better way that an implant, because we can putt he fat graft exactly in that correct side and we don´t need adjust to the implant form.

We used this technic in three different ways:

First, in very separated breast (six patients).

In this cases the utilization of implants has a lot problems in relation to get a good inter-mammary distance, like to get a nice nipple-areolar position, more if besides the mammary implant is under the pectoralis muscle. In this patients independent of kind or size implant used we will get separated breast for ever and it´s frequent that patient are dissatisfied despite have explained about it previously.

Second in tuberous or psudotuberous breast (four patients)

This kind of breast combines the anterior problem "separated breast" with an important defect in lower pole. In several cases is difficult to get a nice shape in lower pole whit implants , despite to use different technics to try resolve this problem.

The fat graft that it´s not a good idea for to fill the upper pole , but work perfectly to fill the lower pole.

Besides if you make a periareolar mastopexy that reduces the size and areolar projection (frequent in this breast) you will can a very good result. Much better than implants.

Finally we use also this technic in very asymmetric breast (two patients).

In this kind of patients we found sometimes very separated breast, different submammary sulcus in height, asymmetric nipple – areola complex and in some cases lack of filler in lower pole, in the more little breast.

In this patients we practice asymmetrical lipostructure of lower pole and in the rest of breast, decline of submammary sulcus, rigottomy and in some cases periareolar mastopexy uni or bilateral.

With all this , we trying to achieve the maximum symmetry so, in volume like in shape in both breast.

Next to the aesthetic results in breast it´s important to stand out the body improvement due of liposuction. Thanks to this we get more harmonic results and happy patients.

The complications in immediate postoperative are less important. Only haematomas and inflammation during a week.

We haven´t had infections, lymphangitis or mastitis. And neither we have had important alterations in mammography pattern in long term.

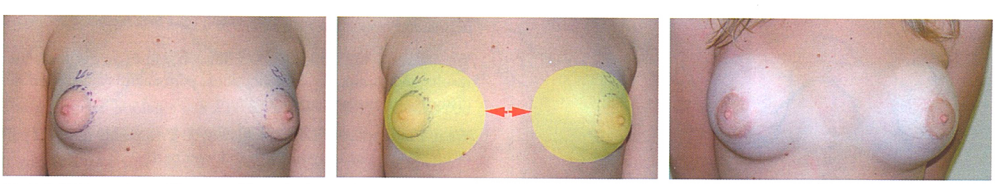


Fig. 4, 5, 6. Tuberous breast. Silicone, round breast implants and periareolar mastopexy. It´s a very distant from one on another breast , and artificial result.

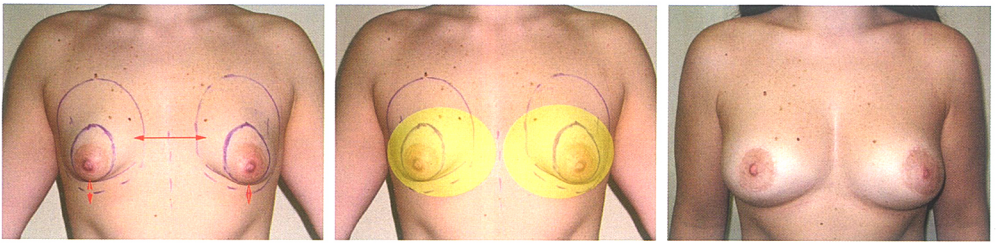


Fig. 7, 8, 9. Tuberous breast. Lipoestructure fat graft. We can put the graft more in just side (on sternum side). In this way we can get a close breast, and more natural result.

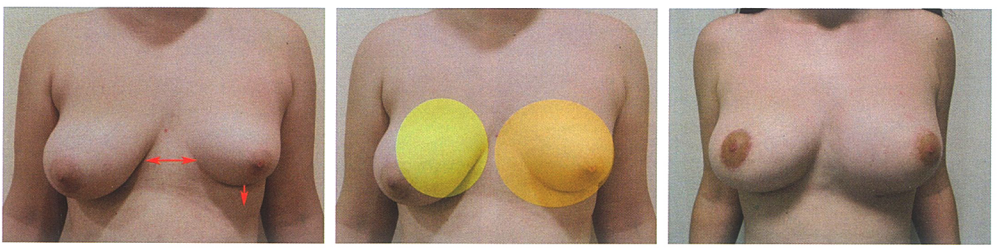


Fig. 10, 11, 12. Asymmetric breast. Lipoestructure fat graft. Pre and post-operatory, after two surgical times. During the process the patient lost 12 klg. However the end volume and the result it was satisfactory.

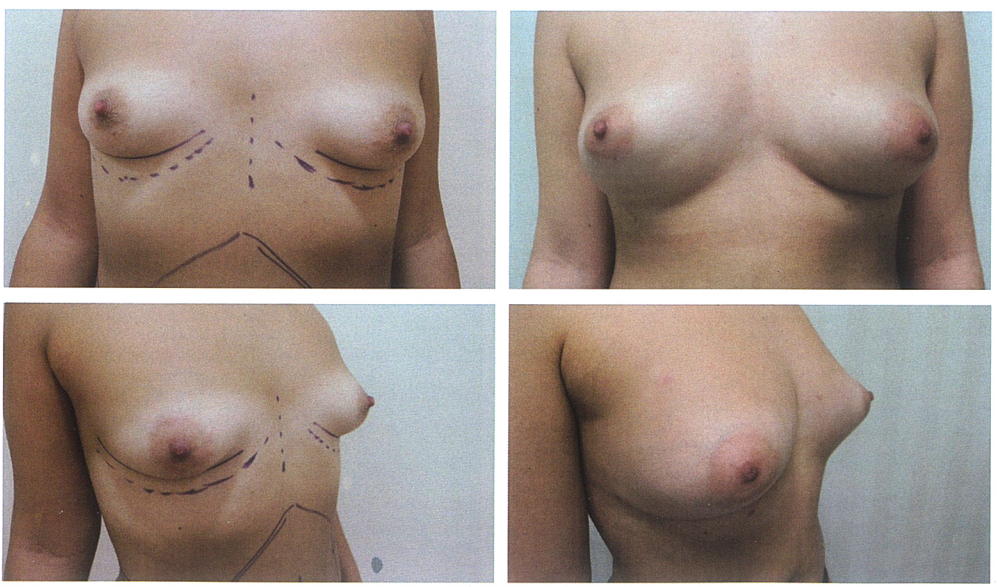


Fig. 13, 14, 15, 16. Pseudo-tuberous and separate, breast. Lipostructure fat graft. Pre and post-operatory after two surgical times.

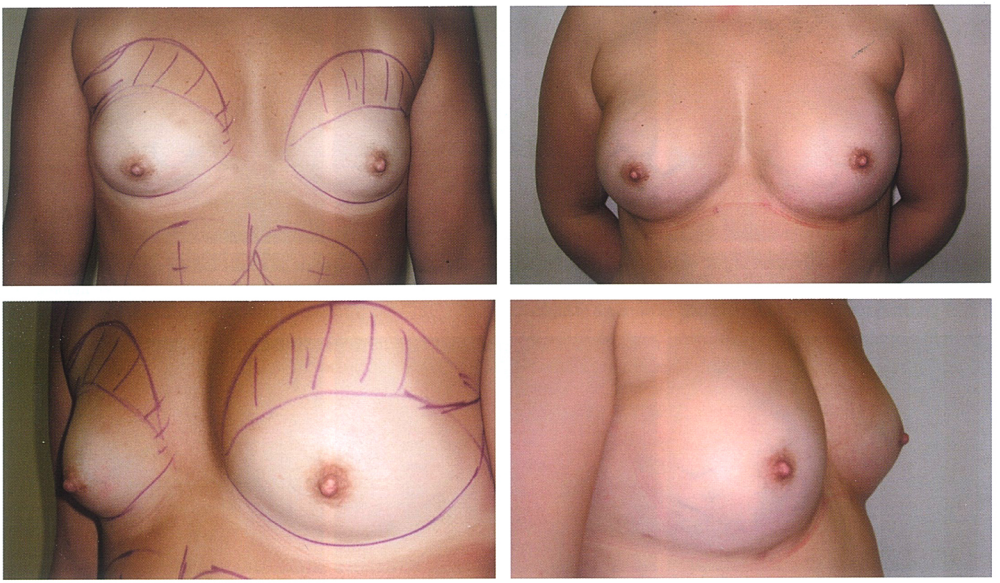


Fig. 17, 18, 19, 20. Pseudo-tuberous breast. Lipostructure fat graft. Pre and post-operatory after two surgical times.

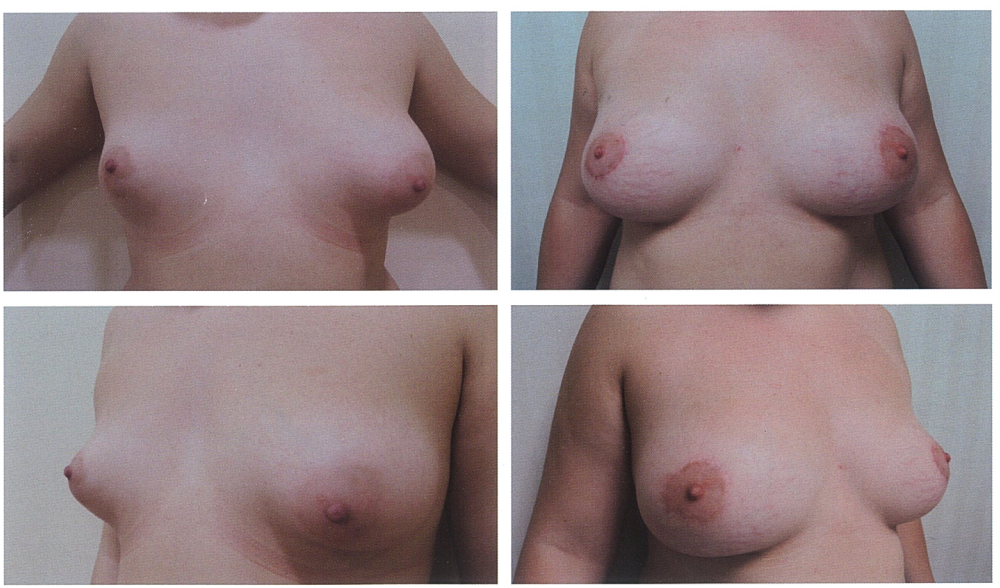


Fig. 21, 22, 23, 24. Very asymmetric and separated breast. Lipostructure fat graft. Pre and Post-operatory after two surgical times

DISCUSSION

I have been operating difficult breast for over seventeen years and never I felt so good like now when a patient arrive to mi office with this kind of pathology.

The difference it´s that now with mammary lipostructure I can offer to my patient a satisfactory solution that meets your expectations.

Whit implant of course I could offer my patients a solution, but knowing that this solution would be unsatisfactory for them and for me.

The implants are a way for resolve the problem ,but the lipostructure it´s a full solution because in lipostructure you can put the volume (fat graft) anywhere you want , while in implants you are limited by the shape of implant.

This it´s more evident in difficult breast for example:,very separated breast or asymmetric.

In this cases with fat graft you can get more exactly results, in symmetry and volume.

In the same way you can get a nice shape in lower pole of tuberous breast avoiding risk of double bubble.

The results in long term are predictable always that you make an careful technique ,avoiding a great amount of fat graft and consequently the necrosis and reabsorption of fat graft.

For that, we use an average amount of 250 ml maximum for every breast and time.

For to get the desired volume we do the procedure in two times.

By this way we avoid the necrosis of fat graft and his impact:

- Alteration in mammography pattern.
- Reabsorption to long term.

If you make two surgical times, you will get the expectations of the most of patients in breast volume.

Besides with this technic you will not have problems of intolerance or rejection of the implant, revisions to check integrity thereof, need replacement after a while.

Usually i make this technic in young people (less of forty years old) for two reasons:

First, because usually this people have a good skin quality for liposuction.

Second, because the incidence of breast cancer increase markedly, of hereinafter the forty, and i don´t want alter the mammography pattern in this population group or even minimally.

I currently on going monitoring of these patients for a year and a half after the intervention ended the proceedings with an ultrasound.

Until now the alteration of mammography pattern have been minimun.

CONCLUSION

The fat mammary graft has been an old procedure that reborn of new, thank to the lipostructure.

The fat graft does not fill well the upper breast pole, but work nice in lower pole and intermammary sulcus, for this reason it´s indicated in defects like tuberous breast, separated breast, and asymmetric breast, more frequently in young people with this kind of pathology.

For these patients the first expectation, it´s a nice shape and not the fill upper pole like in mature breast.

Besides the young people have a good quality skin for liposuction, have a low incidence in breast cancer and is not so important a little alteration in mammography pattern.

For these reason i think that fat graft is the election technic for young people while implants are better in mature woman.

Definitively it´s more easy get a good result with fat graft than implants, when indicated in difficult breast.

In this way, we can get better results with "lipostructure" than with mammary implants.

In this work we show the technic. Advantages of fat graft against the implants and some examples for every term.

In this way we can conclude that the fat graft it´s the best option in difficult breast and perhaps it will be the first indication for these cases in the future.

Bibliography

1. Czerny M.Plastischer Ersatz der brusterlruse durch ein lipom. Verhandl Dtsch Ges Chirurg.

2. May H Transplantation and regeneration of tissue. Penn Med J 1941 ;45:130

3. Peer LA. The neglected free fat graft. Plast Reconstr Surg 1956; 18:233-250.

4. Shorcher F. Fettgewebsver pflanzuang bei zu kneier. Brust Munchen Med Wochenschr 1957 ; 99: (14):489

5. Bircoll MJ . Autologous fat tissue augmentation .Am J Cosm Surg 1987;4 (2):141-149.

6. Cloleman,S.R : Facial Reconturing whit Lipoestructure Facial Cosmetic Surgery 1997, 24 (2): 347.

7. Cervilla L.JM Lipoestructura y relleno del polo superior de la mama frente a implantes. Cir.plast.Iberrolatinoamer. Vol38.N3 Pag225-232.

8. D. del Vecchio and H.Fichadia .Autologous Fat Transpntation- a paradigm Shift in Breast Reconstruction Cap 11. Pp 227-240 Edited by Prof.Marzia Salgarello In Tech Publisher.

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