

## Poster abstracts

P01

### The first case of BI-ALCL in Finland shows an indolent course of disease

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**Introduction / Background:** Breast implant-associated anaplastic large cell lymphoma (BI-ALCL) is a rare breast malignancy. The first case in Finland was diagnosed in 2016.

**Objective(s) / Method(s):** A 61-year-old woman presented with a recurrent periprosthetic effusion 17 years after augmentation with textured round 550cc McGhan implants in a subglandular position. She had swelling of the left breast soon after the first operation. Due to capsular contracture and persistent effusion on the left side, the implants were removed in 2012 under local anesthesia with no cytological examination of the fluid, and the capsules were left behind. Four months later she underwent augmentation mastopexy with Allergan 510FX 400g implants in dual-plane position. She soon developed a large periprosthetic effusion on the left side. In 2015, the fluid was aspirated, but BI-ALCL specific immunohistochemistry was not investigated. Finally, in 2016, she agreed to be referred to Helsinki University Hospital for further investigation.

**Result(s):** Comprehensive BI-ALCL cytology samples were obtained after ultrasound guided aspiration of 700 ml fluid. The fluid contained ALK-negative, CD30-positive cells with typical BI-ALCL appearance. MRI showed periprosthetic effusion, and thickened fibrotic capsule with enhances with contrast media. There were no nodular enhancement in the capsule or extracapsular mass lesions. She underwent surgery in August 2016 with complete removal of the capsule and implant en bloc. The histologic examination revealed no infiltration of ALCL into the capsule. In CT scan there was no sign of spread disease, and she was assigned to follow-up without chemotherapy. Re-examination of the samples obtained in 2015 revealed similar abnormal large cytoplasmic cells common to ALCL. The patient refused contralateral implant removal. At 6-month postoperative follow-up with MRI, lymph node ultrasound and clinical examination there was no sign of recurrence of the disease.

**Conclusion(s):** The first case of BI-ALCL in Finland shows a long history of periprosthetic effusion, and thus an indolent course of disease.

**Disclosure of Interest:** None to declare

P02

### Frozen - Case report

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**Introduction:** Cryolipolysis is a non-surgical technique for localised fat reduction. The method was first described in 2007<sup>1</sup> and is becoming one of the most popular alternative options to liposuction. The method has been described as an alternative to more invasive methods and a promising procedure for non-surgical fat reduction and body contouring. It has been reported to be a safe procedure, with a limited, short-term side effect profile<sup>2</sup>. We report a case of full thickness skin necrosis following localised cryolipolysis.

**Case:** A 30-year-old healthy woman underwent abdominal and hip cryolipolysis at a private clinic in Reykjavík, Iceland. The procedure took 55 minutes and the equipment used was 3D Lipo Med (1st generation), with a standard setting (80% suction, 80% flow and 40% electrophoresis). Immediately after the procedure it was noticeable that the skin had sustained some injury, which was deemed to be a first-degree burn. Within a few days of the procedure, full thickness skin necrosis became evident. The area needed debridement and treatment with negative pressure wound therapy and was finally covered with a split skin graft.



Image:

**Conclusion:** Full thickness skin necrosis following localised cryolipolysis is a rare, but possible complication. We report for the first time a case of full thickness skin necrosis, requiring debridement and split-skin grafting. The complication possibly arose due to a mistake in implementation or equipment malfunction, although the manufacturer claims that no faults were found with the equipment. It is important to report side effects for further understanding and prevention of possible complications.

<sup>1</sup>Manstein D et al. Selective cryolysis: A novel method of noninvasive fat removal. *Lasers Surg Med.* 2008;40:595–604.

<sup>2</sup>Ingargiola MJ et al. Cryolipolysis for Fat Reduction and Body Contouring: Safety and Efficacy of Current Treatment Paradigms. *Plastic and Reconstructive Surgery.* 2015;135(6):1581-1590.

**Disclosure:** None to declare

P03

**Satisfaction with treatment of facial fine lines with vyc-12 injectable gel: patient-reported outcomes from a prospective study**

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**Introduction / Background:** A novel, crosslinked hyaluronic acid injectable filler, VYC-12, was designed to treat superficial cutaneous depressions such as fine lines and improve skin quality attributes such as hydration and elasticity.

**Objective(s) / Method(s):** This prospective, single-arm study evaluated patient-reported outcomes following full face and neck (optional) treatment with VYC-12. Adults ( $\geq 18$  yrs) with moderate/severe investigator-rated cheek skin roughness on the validated, photonumeric, 5-point Allergan Skin Roughness Scale received VYC-12 intradermal injections in the full face (cheek, forehead) and neck at initial treatment; touch-up treatment was provided ~30 days later if required. Topical anesthetic was used before initial treatment (optional for touch-up). Subjects completed the following assessments: 12-item FACE-Q Satisfaction With Skin scale at baseline (BL) and month (M) 1, 4, and 6 after last treatment; willingness to recommend treatment to a friend (y/n) at M1; procedural pain after initial treatment (11-point scale: 0 [no pain]–10 [worst imaginable]); daily diary of injection site responses (ISRs).

**Result(s):** Of 131 subjects who received initial treatment (85% female; median age 54 yrs), only 31 (23.7%) required touch-up. The percentage of subjects with improvement from BL in satisfaction with skin (FACE-Q) was 90.8% at M1, 88.4% at M4, and 83.6% at M6; results were similar for those with moderate or severe skin roughness at BL. For skin quality-related FACE-Q items (radiance, hydration, smoothness, refreshed appearance), >78%, >74%, and >62% of subjects were somewhat/very satisfied at M1, M4, and M6, respectively. At M1, 87% of subjects responded that they would recommend treatment to a friend. Mean procedural pain was 4.3 on an 11-point scale (0 = no pain). ISRs were as expected, mild or moderate, and typically lasted  $\leq 1$  wk.

**Conclusion(s):** VYC-12 treatment of superficial skin depressions and for improvement of skin quality was well tolerated and resulted in high patient satisfaction regardless of BL skin roughness.

**Disclosure of Interest:** P. Ogilvie Conflict with: Investigator for Allergan plc, Marlow, UK, M. Safa Conflict with: Investigator for Allergan plc, Marlow, UK, A. Marx Conflict with: Employee of Allergan plc, Irvine, CA, R. Hopfinger Conflict with: Employee of Allergan plc, Irvine, CA

**Aesthetic breast augmentation mastopexy followed by postsurgical pyoderma gangrenosum (pspg): clinic, treatment and review of the literature**

Lorenz Larcher\*

**Introduction / Background: Introduction:** Pyoderma gangrenosum (PG) is a rare autoinflammatory neutrophilic ulcerative skin disease, often developing after a trauma or surgical wounds. PSPG is a rare but severe complication in this elective aesthetic surgical procedure.

**Objective(s) / Method(s): Method:** A systematic review of the literature was performed, focusing on PSPG after aesthetic breast surgery (augmentation mammoplasty/mastopexy). The online databases Pubmed, Medline, and Cochrane were used and additionally a Google search was conducted.

**Result(s): Results:** The literature search identified seven articles describing eight cases of PSPG after aesthetic breast surgery. In four of these cases augmentation mammoplasty had been carried out, in two cases mastopexy and in two cases augmentation mammoplasty and mastopexy (augmentation mastopexy). The patient we treated and describe in this paper underwent an augmentation mastopexy outside our clinic. Eight patients suffered from local disease, at the site of surgical wounds, one patient had disseminated disease. Leukocytosis was present in five cases (out of nine). Eight patients had received corticosteroid treatment, one patient refused such treatment. The duration of corticosteroid treatment was on average for 41 days (range 21–60 days). In all cases, the areola had been spared. Complete healing of PSPG was observed on average after 5 months (range 1.5 months–1 year).

**Conclusion(s): Conclusion** Although the literature does not recommend this step, implant removal is recommended by the authors because bacterial wound infection normally cannot be ruled out definitely in the early stages of disease. Additional surgical intervention should be limited to the absolute necessary and performed only under adequate systemic immunosuppressive therapy.

**References: References**

1. Su WPD, Davis MDP, Weening R, Powell FC, Perry HO (2004) Pyoderma gangrenosum; clinicopathologic correlation and diagnostic criteria. *Int J Dermatol* 43:790–800
2. Brunsting LA, Goeckerman WH, O’Leary PA (1930) Pyoderma (echthyma) gangrenosum: clinical and experimental observations in five cases occurring in adults. *Arch Dermatol Syph.* 22:655–680
3. Goshtasby PH, Chami RG, Michael R (2010) A novel approach to the management of pyoderma gangrenosum complicating reduction mammoplasty. *Aesthet Surg J* 30:186 e 94
4. Reddy R, Favreau T, Stokes T, Skopit S (2011) Pyoderma gangrenosum following breast reconstructive surgery: a case report of treatment with immunosuppression and adjunctive xenogeneic matrix scaffolds. *J Drugs Dermatol* 10(5):545–547
5. Rietjens M, Cuccia G, Brenelli F, Manconi A, Martella S, De Lorenzi F (2010) A pyoderma gangrenosum following breast reconstruction: a rare cause of skin necrosis. *Breast J* 16(2):200–202
6. Caterson SA, Nyame T, Phung T, Lee B, Tobias AM (2010) Pyoderma gangrenosum following bilateral deep inferior epigastric perforator flap breast reconstruction. *J Reconstr Microsurg* 26(7): 475–479
7. Simon AM, Khuthaila D, Hammond DC, Andres A (2006) Pyoderma gangrenosum following reduction mammoplasty. *Can J Plast Surg* 14(1):37–40
8. Sotillo-Gago I, Munoz-Pérez M, Camacho-Martinez F (1999) Pyoderma gangrenosum after augmentation mammoplasty. *Acta Derm Venereol* 79:486
9. Poucke SV, Jorens PG, Peeters R, Jacobs W, de Beeck BO, Lambert J, Beaucourt L (2004) Pyoderma gangrenosum: a challenging complication of bilateral mastopexy. *Int Wound J* 1:207–213
10. Ouazzani A, Berthe JV, de Fontaine S (2007) Post-surgical pyoderma gangrenosum: a clinical entity. *Acta Chir Belg* 107(4): 424–428
11. Bonamigo RR, Behar PR, Bellar C, Bonfa R (2008) Pyoderma gangrenosum after silicone prosthesis implant in the breasts and facial plastic surgery. *Int J Dermatol* 47:289–291

12. Duval A, Boissel N, Servant JM, Santini C, Petit A, Vignon-Pennamen MD (2011) Pyoderma gangrenosum of the breast: a diagnosis not to be missed. *J Plast Reconstr Aesthet Surg* 64(1):e17–e20

P05

## The clinical aspects of using an upper face mapping system for administration of botox®

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**Introduction / Background:** An original marking system for the upper third of the face is presented to obtain a more accurate and predictable result when using BOTOX®. The proposed mapping algorithm is based on individual anatomical and functional features of the patient's face, allowing the doctor to achieve the safest and most effective treatment.

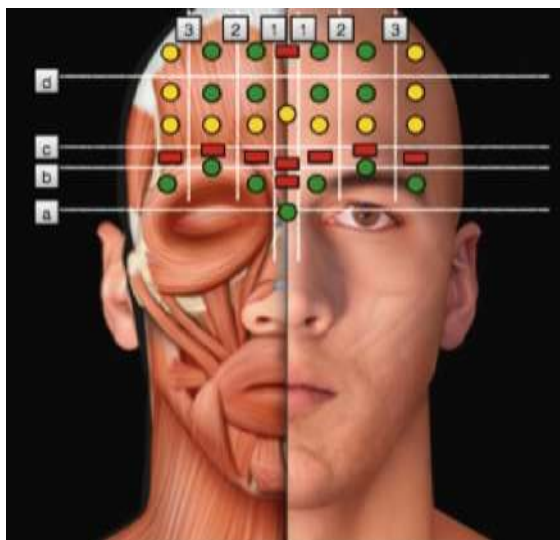
**Objective(s) / Method(s):** Mapping usually assumes a certain unification, however, in our case, the marking took into account fixed anatomical landmarks and the dynamic picture when performing facial expression tests.

The facial mapping system was presented in the form of a "traffic light", marking the points of the safest and most effective treatment in green, additional points in yellow, and areas where injections are not administered in red.

The proposed marking consists of horizontal lines defining the levels of BTA injection, and vertical lines that divide the face into segments. The horizontal marking is based on topographic landmarks and on the results of functional tests. The vertical lines are drawn in accordance with the anatomical landmarks when ascertaining the localization and functional activity of the glabellar and frontalis muscles.

**Result(s):** The vertical marking of the upper face enables optimum botulinum toxin A injections with a predictable lifting effect. Segmental work with certain portions of *m. frontalis* and complex of depressors of glabella achieves the planned effect in correcting the shape and position of the eyebrows. It considers the physiology of muscle contraction and interactions, antagonism and synergy, while preserving the variety of facial expressions.

**Image:**



**Conclusion(s):** The suggested scheme for mapping the upper third of the face allows identifying the areas of effective and safe injections, areas of additional injections, and excluding the areas where injections are either fraught with complications or ineffective. The mapping is always adapted to a specific patient and permits treatment with consideration of the individual traits and wishes.

**Disclosure of Interest:** None to declare

**Safety and effectiveness of vyc-12 injectable gel for treatment of facial fine lines: 6-month results from a prospective study**

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**Introduction / Background:** VYC-12 hyaluronic acid injectable gel was designed to treat superficial cutaneous depressions such as fine lines and to improve skin quality attributes such as hydration and elasticity.

**Objective(s) / Method(s):** This prospective, single-arm study evaluated the safety and effectiveness of VYC-12 treatment of the full face (cheeks and forehead) and neck (optional). Adults (age  $\geq 18$  yrs) with moderate/severe cheek skin roughness on the validated, photonic, 5-point Allergan Skin Roughness Scale (ASRS) received intradermal VYC-12 injections; touch-up treatment was provided  $\sim 30$  days later if needed. Primary effectiveness measure: proportion of cheeks with  $\geq 1$ -point improvement (responder) from baseline (BL) ASRS score at month (M) 1 after last treatment. Additional assessments: instrument measures of skin smoothness, hydration, firmness, and thickness; investigator-assessed severity of fine lines (Allergan Fine Lines Scale [AFLS]); adverse events (AEs); and injection site responses (ISRs).

**Result(s):** Of 131 subjects treated (261 cheeks), only 31 (23.7%) required touch-up (46 cheeks; 17.6%). Most subjects were female (88.5%); median age: 54 yrs (range, 32-72). Median injection volume for cheek (initial + touch-up) was 1.3 mL (entire face + neck=3.9 mL). ASRS responder rate was 96.2% at M1, 76.3% at M4, and 34.9% at M6. Measures of cheek smoothness, hydration, firmness, and thickness significantly ( $P < 0.05$ ) improved from BL at M1, with improvements in firmness maintained through M4 and hydration through M6. For 189 cheeks with moderate/severe fine lines (AFLS: 2 or 3) at BL, the AFLS responder rate was 89.4% at M1, 66.7% at M4, and 40.5% at M6. All treatment-related AEs were mild or moderate. ISRs were as expected for filler treatment, typically lasting  $\leq 1$  wk. One day after initial treatment, 95% of subjects returned to normal social activities.

**Conclusion(s):** VYC-12 was safe and effective for treatment of superficial skin depressions and improving skin quality, with effects lasting 4 to 6 months.

**Disclosure of Interest:** F. Niforos Conflict with: Investigator for Allergan plc, Marlow, UK, C. Leys Conflict with: Investigator for Allergan plc, Marlow, UK, M. Cavallini Conflict with: Investigator for Allergan plc, Marlow, UK, A. Marx Conflict with: Employee of Allergan plc, Irvine, CA, R. Hopfinger Conflict with: Employee of Allergan plc, Irvine, CA

**The Role of Combining Fat and Silicone Breast Implants in Cosmetic and Reconstructive Breast Surgery**

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Controversy is no stranger to plastic surgery, and the subject of infiltrating the breast with fat is one of the latest examples. This topic has many features that complicate how people view it. Autologous fat injection in general has achieved wide acceptance over the past decade or two. This Procedure is widely applied by surgeons for face, buttock, hand, and postliposuction deformities. The progressive nature of this method in the breast has proceeded more slowly, perhaps for good reason.

The breast can be augmented or reconstructed in most cases relatively easily with implants or flaps. It is important to remember that for reasons of disease detection, the breast is subjected to frequent radiologic and physical examinations, and greater than 10 percent of women eventually develop breast cancer.

Thus, mimicking breast cancer, obscuring breast cancer, or causing breast cancer are issues that surround any breast procedure or device, particularly fat infiltration.

As we assess the value proposition of breast fat infiltration, we need to distinguish five different scenarios and assess them individually. Those five scenarios are:

1. Supplementing breast reconstruction by improving contour irregularities.
2. Correcting defects after lumpectomy or other partial injuries.
3. Cosmetic breast enhancement and enlargement, including hybrid approaches aimed at minimizing implant size
4. Camouflaging implants after breast augmentation.
5. Reconstruction after mastectomy using solely fat infiltration.

This concept that is still in its early years of scientific investigations, although a mix of practitioners and industry partners have shed some light into the importance of fat graft quality. As we attempt to arrive at our conclusions, I suggest that we measure and examine five factors for each of these potential applications: efficacy, safety, cost, value/work, and liability.

While surgeons continue to explore this novel concept and shed light on new findings, organized medical societies have the challenging responsibility of preaching caution without stifling progress.

So, can Hybrid procedures with fat and implants be the new deal? Most importantly, what does keep surgeons skeptics about it? The answer is complex as we described so far, but it definitely springs from the lack of standardisation of such surgeries in the past.

With the accelerating speed of scientific advancement and dissemination of knowledge, this responsibility bears more weight and importance. Thus, for highly volatile topics such as this, it may be necessary to review position papers or policy statements more frequently.

In the interest of learning what plastic surgeons think regarding fat infiltration of the breast, three questions were posed to the audience during panels at two major American meetings (American Association of Plastic Surgeons and Northeastern Society of Plastic Surgeons). The votes were marked on paper ballots and tabulated. The questions and the tallied numerical votes are presented in Tables 1 through 3.

**Table 1. Preferred Technique for Addressing an Upper Breast Contour Defect after Breast Reconstructions**

**Option No. of Responses (%)**

- Dermal fat graft 13 (11%)
- Fat injection or lipoinfiltration 92 (76%)
- Latissimus flap 7 (6%)
- AlloDerm grafts 7 (6%)

**Table 2. Fat Injection or Lipoinfiltration as a Tool in Breast Reconstruction Is an Acceptable Technique**

**Option No. of Responses (%)**

- Agree 123 (87)



Disagree 18 (13)

**Table 3. Which Best Describes Your Opinion Regarding Fat Injection or Lipoinfiltration for Breast Enhancement?**

Should never be done 9 (7%)

Should not be done except in studies pending further research and publications 56 (41%)

Could be done with careful proper informed consent outlining any uncertainties and known and possible risks 49 (36%)

Is as safe as other established elective breast cosmetic procedures and should be allowed for properly informed women 22 (16%)

One can see from the tables that the surveyed plastic surgeons overwhelmingly endorse fat infiltration to complement breast reconstruction but as a group remain undecided on its use for cosmetic purposes. It is important to emphasize that undecided means just that, the jury is out.

It is clear that there is a "will", so we are only missing the "way". The future of Hybrid procedures consist in respecting the following basic principles:

- Create a concept for hybrid breast augmentation surgery that will give reproducibility, predictability and better surgical outcomes.
- Offer a procedure that reduces complications related to volume and silicone weight in breast surgery.
- Offer an better alternative for surgeons who would appreciate light weight implants

Over the coming months, we will have preponderance of information and evidence introduced by the leading initiative of Establishment Labs together with Puregraft and Tulip. This unprecedented endeavour in the plastic surgery will sanction a more informed decision making process. In the meantime, it is important to remain open minded and scientifically curious. Most of all, it is important to keep our biases locked up and let the evidence take us where it may.

### **Breast Distortion Following Submuscular Breast Augmentation Revisited**

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Almost 10 years after Dr Scott Spear introduced the concept of animation deformity or breast distortion during pectoralis muscle contraction following subpectoral breast augmentation, its prevalence, causes and significance remain unclear.

However, the accumulative experience with textured devices has exponentially increased in the last decade, which resulted in the emergence of novel theories for the related subject matter.

The benefits of subpectoral positioning include improved upper-pole soft tissue, camouflage in thin patients, less visible rippling, less visibility of the implant, probably a lower rate of capsular contracture, and improved visibility of the breast parenchyma on mammogram. Disadvantages to subpectoral placement are the potential for increased animation deformity, possibly somewhat greater postoperative pain, and, in certain patients, less direct control of the upper breast contour. Animation deformities following subpectoral implant placement may be significant in certain patients, especially if they exercise frequently or lift weights. Thus, although some patients might find animation deformity to be a problem, many if not most, might still choose subpectoral positioning.

To date, not much has been written on the subject of animation deformities.

The authors revised 25 consecutive cases of reoperation regarding the same issue. All patients had previous breast surgery with macrot textured devices (Allergan) and replaced with nanotexture implants (Motiva).

Patient's surgical history and life style were collected. Information about the intraoperative findings allowed the authors to realize that the erratic and unpredictable attachments of the implants in the surrounding tissues were present in a 100% of the cases. Moreover, all cases of animation deformity had the implants adhered to the muscle in the anterior portion of the implants and completely loose on the posterior surface.

All cases had the implants replaced with nanotextured implants that do not promote tissue ingrowth. The authors' hypothesis was that the implant would remain loose in the capsule and upon the muscle contraction, it would slide on top of the implants not including them in the movement as they were not attached. In a 100% of the cases, the animation deformity issues were solved or greatly attenuated with the simple maneuver of replacing the macrot textured implants with the newly and improved developed nanotextured devices.