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Program Chairpersons: Dr Nicholas Carr, President; Dr Julie Khanna, Vice-President

01

BREAST IMPLANT-ASSOCIATED ANAPLASTIC LARGE CELL LYMPHOMA: STAGING, DISEASE PROGRESSION, AND MANAGEMENT STRATEGIES

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BACKGROUND: Breast implant-associated anaplastic large cell lymphoma (BI-ALCL) is a newly identified lymphoma arising around breast implants placed for cosmetic or reconstructive indications. Patterns of disease progression and optimal treatment strategies have not been described.

METHODS: The literature was reviewed for all published cases of BI-ALCL from 1997 to November 2014, contacted corresponding authors to update clinical follow up, management, and combined data with institutional cases. A novel clinic-pathologic TNM staging system is proposed and was compared to traditional Ann Arbor staging to determine prognostic value for overall survival (OS) and progression free survival (PFS). A Prentice, Williams and Peterson (PWP) model was used to assess treatment effect on progression events.

RESULTS: We identified 128 unique cases of BI-ALCL, including 91 previously reported and 37 unreported cases. Pathologic slides were available in 56 patients for pathologic staging. Average follow up was 45 months (30-217 months). The median OS was 13 years, OS rate 93% at 3-years and 89% at 5 years. 18 progression events were noted and median PFS was 13 months, with 3-year and 5-year PFS at 79.4%. Total capsulectomy with implant removal (TCIR) prolonged OS ($p=0.022$) and improved PFS ($p=0.014$), and the effect of definitive surgery was statistically significant for PFS benefit (HR 0.14 [95% CI 0.05 to 0.46]; $p=0.001$). After definitive surgery, patients had 4% of risk of having events by the end of the first year while the rates were 18%, 24% and 60% when patient had radiation, chemotherapy or limited surgery. The PFS was significantly different by Ann Arbor staging ($p=0.013$) and by the newly proposed clinical staging ($p=0.030$).

CONCLUSIONS: Advanced stage, presence of mass, incomplete resection, and delay in definitive surgical treatment were associated with poor OS and PFS in patients with BI-ALCL. Surgical management with definitive excision and oncologic surveillance is adequate for most patients with BI-ALCL. The role for chemotherapy, targeted immunotherapy, and/or radiation for advanced disease requires further research in larger series.

02

EVOLVING TECHNIQUES IN BRACIOPLASTY AND THIGHPLASTY: 15 YEARS OF EXPERIENCE

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The management of the massive weight loss patient seeking plastic surgery has changed markedly over the past 15 years.

The evolution of our center during this time frame will be discussed and will cover patient safety and preoperative considerations; surgical evolution in techniques and planning; and review changes in our postoperative protocols. Long term outcomes will be reviewed and recommendations will be made based on experience and historical data review.

03

HIGH EXTENDED SMAS FACELIFT

C Thorne
New York, New York, USA

The advantages and the operative technique will be presented. Given that no facelift technique has been proven most efficacious, particular attention

will be paid to the incisions and the vectors and technique of skin re-draping, trimming and inseting.

04

THE ART AND SCIENCE OF BODY SCULPTING

JA Millard
Lone Tree, Colorado, USA

4D-VASER Hi Def Liposculpture introduces the following new principles:

1. Includes a much more comprehensive understanding of the artistic anatomic principles and how they can be incorporated and applied in liposculpture. Principles of form, and especially fullness of form, are introduced in this technique
2. Incorporates the understanding of how the figure and muscles in motion contribute to the outward topographic appearance of the human figure.
3. Takes into account a more complex understanding of adipose tissue and connective tissue anatomy and its interplay with the underlying musculoskeletal anatomy. It introduces and uses a much more sophisticated understanding of adipose tissue and connective tissue anatomy, namely a multi-compartment theory of fat and its contribution to the muscular and skeletal definition in topographic appearance of the human figure.
4. Introduces the use of autologous fat grafting (AFT) as an adjunct to liposculpting by extending indications to many more body areas and for many more and different purposes, which gives sculpting surgeons a new and powerful tool for sculpting.
5. Incorporates an understanding of how light and the human figure interact in studying and marking the patient for liposculpting as well as in documenting the changes that are achieved after liposculpting

05

CENTRAL BODY RECONTOURING AND BEYOND: A STAGED APPROACH TO MASSIVE WEIGHT LOSS BODY CONTOURING

S Egrari
Bellevue, Washington, USA

Massive weight loss body contouring has become an important part of the journey of weight loss, and has also become an important discipline of plastic surgery. The procedures have evolved to be more reproducible, and with the extraordinary frequency that they are performed more effective. The approach to the massive weight loss patient depends on unique body features of the patient, and also the characteristic of their weight loss at presentation. Central body recontouring in the form of a lower body lift continues to be the sentinel operation and the one that other stages are based upon. Upper body recontouring in form of breast lifting, brachioplasty, lateral chest wall and upper back are often an appropriate second stage. In general third stage is thigh lifting. A number of patients will be presented and their unique anatomy and the staged approach to each will be discussed. There will be pertinent discussion of the pre-operative preparations, operative strategies, and post-operative care of each of the selected cases. Long term results along with limitations and complications will be discussed.

06

PEEKING BEHIND THE CURTAIN: SURGICAL JUDGMENT BEYOND COGNITION

CA Moulton
Toronto, Ontario

Surgeons' decision making within the operating room is influenced by many factors including those not related to patient care which have implications for professional self-regulation, patient safety, and medical education. Examining these factors along with the model of decision making currently

in practice, provides an opportunity to create a culture of critical self-reflection and transparency in discussing surgical errors. This novel approach could lead to improved surgeon well-being and a reduction in surgical errors which has important implications for surgical training.

07

CSAPS AND KSAPS: REACHING OUT TO KOREA

N Carr, P Lennox

Vancouver, British Columbia

Drs. Carr and Lennox report on a week they spent as guests of the KSAPS and KSPS exploring Korean culture and plastic surgery. They share insights on the potential to share knowledge between our organizations, and present some cases representative of current concepts and techniques in Korean plastic surgery.

08

PLATYSMAPLASTY VIA ORAL APPROACH

A Wilson

Cairo, Egypt

Conventional platysmaplasty procedures have been performed via the standard submental incision. This approach has the obvious disadvantages of visible scarring and/or tethering of the scar to underlying structures, annoying bruising from strong skin traction to access neck structures through a keyhole incision and difficult hemostasis. In addition, access to investing fascia of the neck which may need tightening during a neck lift is a practical impossibility. Some individuals find even a small neck scar unacceptable, so much so that to avoid scarring in thyroidectomy surgery, an endoscopic approach was used with neck insufflation and anterior neck-lift device. We believe neck lift patients deserve similar privileges.

METHODS/TECHNIQUE: 47 patients with moderate to marked skin excess, and redundant preplatysmal/subplatysmal fat were candidates for isolated neck lift surgery, and did not need or refused to have a concomitant rhytidectomy.

A long incision is made in the lower gum and dissection proceeds subperiosteally. At the level of the submentum, the periosteum is incised, and then all structures in the midline raphe of the neck and for 2 cm either side are cut carefully until the platysma is accessed. This involves transecting the investing deep fascia of the neck, which is marked by stay sutures to enable subsequent plication.

Dissection then proceeds in the preplatysmal plane using a special designed endoscopic retractor with two ports: one for a 3-mm endoscope and the other for a suction device. The handle of the retractor is used to pull the neck skin anteriorly, and with a long curved blunt scissors, dissection proceeds in a caudal direction; cauterizing any bleeders encountered on the way. As the dissection proceeds deeper in the neck, the retractor is introduced further until the root of the neck was attained. Laterally, dissection could extend to the posterior cervical triangle until all platysma is liberated from skin.

Subsequently, dissection is directed to the subplatysmal plane to free the muscle from underlying fat. With the endoscope still in place, preplatysmal and subplatysmal fat are resected, and electro-cautery used to seal off any bleeders. Then excised fat is gently negotiated out of the neck to the outside through the gum incision.

Then attention is directed to the platysma muscle. Its anterior borders are sutured in the midline with 3/0 poliglecaprone 25, and as many Z-plasties as deemed necessary are done to achieve adequate tightening and lengthening of the muscle. To restore the cervicomental angle, the platysma is always anchored to the hyoid bone using a non-absorbable suture material.

Then the previously marked investing deep fascia of the neck is tightened using running 4/0 nylon. Finally, the buccal incision is stitched up. A contoured compression Caromed face lift bandage with a 2-inch neck extension is put in place, and worn continuously for 14 days. Details of the technique and a video of the procedure is to be presented.

RESULTS/COMPLICATIONS: This novel route of access has several advantages: the submental incision is avoided, the platysma is more accessible, enabling more perfect plication and hyoid fixation, traction and resulting trauma to the neck skin is totally avoided, leading to practically negligible swelling, bruising, dimpling or puckering, and a more anatomic repair is achieved since lax investing fascia of the neck is tightened, which is an additional reinforcement to the neck lift.

Only one hematoma was encountered, and 2 cases of residual skin redundancy. At the end of the first postoperative week, no skin bruising, dimpling or puckering was encountered in any of the cases.

Possible disadvantages of intra-oral route would include the theoretical risk of infection from oral commensal bacteria. However, routine antibiotic prophylaxis, and excellent neck vascularity rendered the infection rate 0%. Another possible disadvantage would be related to the absence of skin excision. However, when the skin was properly redraped, excision was unnecessary, and any redundancy had the tendency to shrink with the elastic recoil of skin. Furthermore repositioning of the platysma stretched the skin since it had to travel a longer way in its new redraped position, thus redraped skin forms two sides of a triangle rather than just a hypotenuse (Pythagoras theory)

CONCLUSION: Intraoral platysmaplasty is a novel route of access to the neck lift, and has several advantages.

09

THE IMPACT OF PROTEIN NUTRITIONAL SUPPLEMENTATION FOR MASSIVE WEIGHT LOSS PATIENTS UNDERGOING ABDOMINOPLASTY

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BACKGROUND: As more patients undergo bariatric surgery to assist with weight loss, the demand for postbariatric body contouring surgery, to address both functional and aesthetic concerns, is increasing. However, high wound healing complication rates remain a significant problem for these patients. One theory is that chronic malnourishment and hypoproteinemia may contribute significantly to these wound healing complications.

OBJECTIVE: The purpose of this study was to determine the effect of perioperative protein nutritional supplementation on wound healing in postbariatric surgery massive weight loss patients undergoing abdominoplasty. Our hypothesis was that protein supplementation would decrease wound healing complications.

METHODS: A retrospective review was performed of 23 postbariatric surgery patients undergoing abdominoplasty who received perioperative protein nutritional supplementation. This group was compared with a historical control group of 23 postbariatric surgery patients who underwent abdominoplasty in the period immediately before the implementation of the protein supplementation protocol. Patient demographics and procedural characteristics were similar for the 2 groups.

RESULTS: Forty-six patients were identified who had undergone abdominoplasty, half of whom were prescribed the protein supplementation protocol. Overall wound healing complication rates were significantly lower in the protein supplemented group (0.0% vs. 21.8%, $p=0.04$). There was no significant difference between the protein supplementation and historical control groups in regards to total complication rate.

CONCLUSIONS: Perioperative protein supplementation is a simple intervention that can significantly decrease wound healing complications in postbariatric surgery massive weight loss patients undergoing abdominoplasty.

10

THE SAFETY OF AESTHETIC LABIAPLASTY: A PLASTIC SURGERY EXPERIENCE

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BACKGROUND: The demand for female aesthetic labiaplasty surgery continues to rapidly increase. Several questions have been raised regarding the safety and effectiveness of female aesthetic genital surgery.

OBJECTIVES: The purpose of this study is to review our experience with aesthetic labiaplasty and describe the type and frequency of complications that have been experienced.

METHODS: A retrospective chart review was performed on all patients who had primary aesthetic labia minora reduction surgery from August 2007 to April 2014. A chart review of the electronic medical record was performed to examine demographic, procedural and outcomes data.

RESULTS: In the study period, 113 patients underwent aesthetic labiaplasty. Twenty-nine patients (25.6%) had labiaplasty performed in combination with another procedure. Fifteen patients (13.3%) reported transient

symptoms included swelling, bruising and pain. There was one patient (0.8%) that experienced bleeding. Four patients (3.5%) required revision surgery. All revisions were performed to excise further tissue to address persistent redundancy or asymmetry. No major complications were reported.

CONCLUSIONS: In our experience, aesthetic surgery of the labia minora using an edge excision technique has a very low complication rate and provides satisfactory aesthetic outcomes for our patients. More studies examining the impact of labiaplasty on a woman's self-image and quality of life would add to our understanding of the motivations and expectations of women undergoing this aesthetic surgery. This information will allow us to help our patients make well-informed decisions when considering this aesthetic genital surgery.

11

PERIOPERATIVE CORTICOSTEROIDS REDUCE SHORT-TERM EDEMA AND ECCHYMOSIS IN RHINOPLASTY: A META-ANALYSIS

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BACKGROUND: The purpose of this meta-analysis is to estimate the effectiveness of systemic perioperative corticosteroid treatment compared to placebo for clinical outcomes in rhinoplasty. Three recent reviews have reported conflicting conclusions.

METHODS: Electronic databases were searched for relevant trials (MEDLINE, EMBASE, Cochrane Library) without language restriction. Included trials were randomized controlled trials of systemic perioperative corticosteroid treatment versus placebo in rhinoplasty evaluating at least one of: edema, ecchymosis, bleeding, cosmetic outcome and patient satisfaction. The Cochrane risk of bias tool was applied to included trials and we assessed the quality of evidence for each outcome using the GRADE approach. Subgroup analyses explored clinical heterogeneity.

RESULTS: 336 patients from eight trials were included. Perioperative corticosteroids reduced the worst edema (SMD -1.03 [95% CI -1.30 to -0.76]; $p < 0.001$) and ecchymosis (SMD -0.78 [95% CI -1.09 to -0.47]; $p < 0.001$) following rhinoplasty versus no treatment. At 24 hours, a single dose of perioperative corticosteroids reduced edema (SMD -1.15 [95% CI -1.42 to -0.87]; $p < 0.001$) and ecchymosis (SMD -0.79 [95% CI -1.05 to -0.52]; $p < 0.001$) versus no treatment. Corticosteroids demonstrated no clinical benefit in edema or ecchymosis seven days postoperatively, nor did they increase intraoperative bleeding versus no treatment.

CONCLUSION: There is high-quality evidence to support systemic steroid treatment in rhinoplasty to reduce short-term edema and ecchymosis without increased intraoperative bleeding. These findings are not present at seven days. We suggest evaluation of patient satisfaction and long term cosmetic outcome in future trials.

12

BEYOND RESVERATROL: NEW SCIENCE OF ANTI-AGING WITH WINE

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Epidemiologic surveys consistently show a J-shaped curve linking moderate daily wine consumption to longer average lifespan, lower rates of degenerative diseases with aging, and higher quality of life and cognitive functioning in old age. Research has focused on the possible role of polyphenol compounds found in red wine, especially trans-resveratrol. The pleomorphic properties of this molecule provide a plausible cause-effect explanation for many of the specific disease conditions, which have a lower incidence in wine drinkers. In particular, resveratrol has been reported to activate epigenetic enzymes known as sirtuins, which in turn modulate expression of genes associated with longevity and disease reduction via metabolic alterations associated with caloric restriction. Resveratrol is now popularly marketed as a supplement.

Resveratrol is now widely perceived as a proxy for wine despite the fact that it occurs in lower concentration in wine than levels used in laboratory models. Recent research has revealed that resveratrol is an indirect sirtuin activator, and other more direct activators have now been identified. The role of other polyphenols from red wine in anti-aging has also been demonstrated, and other pathways for resveratrol unrelated to sirtuins have been reported. Together these findings point to a more detailed understanding of aging at a subcellular level and possible new anti-aging interventions.

The association of moderate wine consumption with other healthy lifestyle markers remains. This review will describe the current state of research on sirtuins and other potential activation pathways, examine the potential role of other wine-derived compounds and underscore the role of wine in a healthy lifestyle.

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