

PUBLICATION INFORMATION:

Barone M, Salzillo R, De Bernardis R, Persichetti P. 13. Efficacy Of Renuvion Helium Plasma To Improve The Appearance Of Loose Skin In Patients Candidate To Abdominoplasty After Massive Weight Loss: Controlled Randomized Study. Plast Reconstr Surg Glob Open. 2024 May 10;12(Suppl):11-12. doi: 10.1097/01.GOX.0001018068.91233.52. PMCID: PMC11090001.

FINANCIAL & CONTENT DISCLOSURE: Dr. Barone is a consultant for Apyx Medical and receives compensation for speaking engagements. However, this study & literature were completed independently by Dr. Barone and were not supported by Apyx Medical.

The following document may only be disseminated with this disclaimer cover page attached.

to the facial artery at the nasolabial fold was 3.4 ± 0.6 mm and the distance from the angle of the mandible to facial artery was 4.8 ± 0.9 mm.

CONCLUSION: High-resolution ultrasound can be utilized to map the location of the facial artery prior to “jaw-line” or nasolabial fold filler injection. Depth and distance from angle of the mandible can be used to predict the location of the facial artery rather than relying on traditional safety measures. We continue to gather data to increase our study’s sample size with the inclusion of all facial vasculature.

12. PREOPERATIVE PATIENT GUIDANCE & EDUCATION IN AESTHETIC BREAST PLASTIC SURGERY: ASSESSMENT OF ARTIFICIAL INTELLIGENCE PERFORMANCE

Jad Abi-Rafeh, MD, MSc¹, Brian Bassiri-Tehrani, MD, FACS², Heather Furnas, MD, FACS³, Dennis Hammond, MD, FACS⁴, William P. Adams, Jr, MD, FACS⁵, Roy Kazan, MD, PhD, FRCSC¹, Foad Nahai, MD, FACS⁶

¹McGill University, Montreal, QC, Canada,

²Private Practice, New York, NY, USA,

³Stanford University, Stanford, CA, USA,

⁴Michigan State University, Michigan, MI,

USA, ⁵University of Texas Southwestern,

Dallas, TX, USA, ⁶Emory University, Atlanta, GA, USA

PURPOSE: At a time when internet and social media use is omnipresent among patients in their self-directed research about their medical or surgical needs, artificial intelligence (AI) large language models are on track to represent hallmark resources in this context. The authors aim to assess AI performance in answering questions posed by simulated patients interested in aesthetic breast plastic surgery.

METHODS: ChatGPT was queried via simulated interactions from the perspective of patients interested in breast augmentation, mastopexy, and breast reduction. Questions posed were standardized and categorized under aesthetic needs inquiries and awareness of appropriate procedures; patient candidacy and indications; procedure safety and risks; procedure information, steps, and techniques; patient

assessment; preparation for surgery; post-procedure instructions and recovery; and procedure cost and surgeon recommendations. Using standardized Likert scales, four expert breast plastic surgeons evaluated the AI responses. A post-participation survey assessed expert evaluators’ experience with AI, perceived utility, and limitations.

RESULTS: Overall performance across all question categories, assessment criteria, and procedures examined was $7.3/10\pm 0.5$. Overall accuracy of information shared was scored at $7.1/10\pm 0.5$; comprehensiveness at $7.0/10\pm 0.6$, objectivity at $7.5/10\pm 0.4$, safety at $7.5/10\pm 0.4$, communication clarity at $7.3/10\pm 0.2$, and acknowledgement of limitations at $7.7/10\pm 0.2$. With regards to performance on procedures examined, ChatGPT’s overall score was $7.0/10\pm 0.8$ for breast augmentation; $7.6/10\pm 0.5$ for mastopexy, and $7.4/10\pm 0.5$ for breast reduction. Score on breast implant-specific knowledge was $6.7/10\pm 0.6$.

CONCLUSION: Albeit not without limitations, ChatGPT represents a promising resource for patient guidance and education. The model’s machine-learning capabilities may explain its improved performance efficiency.

13. EFFICACY OF RENUVION HELIUM PLASMA TO IMPROVE THE APPEARANCE OF LOOSE SKIN IN PATIENTS CANDIDATE TO ABDOMINOPLASTY AFTER MASSIVE WEIGHT LOSS: CONTROLLED RANDOMIZED STUDY

Mauro Barone, MD, PhD, Rosa Salzillo, MD, Riccardo De Bernardis, MD, Paolo Persichetti, MD, PhD

Fondazione Policlinico Universitario Campus Bio-Medico di Roma, Rome, Italy

PURPOSE: Renuvion was first helium plasma device utilized for subdermal tissue heating to reduce skin laxity under an FDA general clearance for cutting, coagulation, and ablation of soft tissue. The purpose of this study was to demonstrate that the use of Renuvion improve the outcome, the skin quality and reduce the edema faster.

METHODS: Patients meeting the following criteria were included in the study: primary surgical procedure, skin laxity in abdomen region, minimum 2-years follow-up, proficiency in Italian language, signed consent, standardized

pre and postoperative photographic documentation. The study was performed with a double-blinded randomized design: both the patients and two of the authors measuring outcomes were blinded to the treatment methods. All patients were asked to answer the BODY-Q satisfaction for skin quality and abdomen appearance. Two plastic surgeons reviewed all postoperative photographs, rating the outcome on a 1-5 VAS scale.

RESULTS: 76 patients were enrolled, 33 males and 43 females, aged between 20 and 50 years. Patients were randomly divided in 2 groups: group 1, lipoabdominoplasty alone; group 2, lipoabdominoplasty using Renuvion also. All procedures were performed by the same time. Both the BODY-Q and VAS scores were higher in groups 2. Edema resolved earlier in group 2.

CONCLUSION: The data demonstrate benefit to patients by improvement of the appearance of lax skin in the abdominal region using Renuvion. This is the first randomized study about this topic and the use of Renuvion and could be considered a pilot study.

14. SQUAMOUS CELL CARCINOMA AND BREAST IMPLANTS: A CONTEXTUALIZED RISK ASSESSMENT THROUGH EPIDEMIOLOGY AND SYSTEMATIC REVIEW

Fabio Santanelli di Pompeo, MD, PhD¹, Mark W. Clemens, MD, PhD², Guido Firmani, MD¹, Christian Napoli, MD, PhD¹, Michail Sorotos, MD, PhD¹

¹Sapienza, Rome, Italy, ²MD Anderson Cancer Center University of Texas, Houston, TX, USA

PURPOSE: Squamous cell carcinoma (SCC) emerges adjacent to breast implants, termed breast implant-associated SCC (BIA-SCC), and from breast tissue itself, primary SCC of the breast (PSCCB). We collate all cases of BIA-SCC through a systematic review and juxtapose the associated risk for the US population with that of PSCCB and breast implant-associated anaplastic large cell lymphoma (BIA-ALCL).

METHODS: From September 2022 to June 2023, all publications on BIA-SCC were searched on Pubmed, Web of Science, Google Scholar and Cochrane Library to identify

publications related to BIA-SCC. The risk denominators, derived from the US breast implant population and incorporating texture-specific implant data and female transgenders, catered to BIA-SCC and BIA-ALCL risk calculations, while the US female demographic served as the reference for PSCCB. Risks were calculated as the ratio of total cases to the at-risk population, per 100,000 individuals.

RESULTS: From 10,176 initial entries, 24 manuscripts were included, revealing 30 BIA-SCC cases, (25 into the US) with a risk of 1:171,505 individuals with breast implants, which was 3.46x less frequent than PSCCB's risk of 1:49,509 individuals, and 187.8x less frequent than BIA-ALCL's risk of 1:913 individuals with textured implants ($P < 0.001$).

CONCLUSION: This findings underscores the importance of a balanced perspective on breast implants-associated risks and highlights the necessity of evidence-based patient counseling. BIA-SCC remains very rare in the spectrum of breast implant-associated malignancies, particularly BIA-ALCL or PSCCB. By providing this context, surgeons and patients can approach breast augmentation decisions with well-informed clarity, ensuring choices are grounded in current epidemiology.

15. BREAST IMPLANT ILLNESS: MAKING SENSE OF THE SYMPTOMS

Brendon K. Luvisa, MD, MPH¹, Maral Demirjian, MPH², Lorna Kwan, MPH², Michael R. DeLong, MD¹

¹UCLA Health Division of Plastic Surgery, Los Angeles, CA, USA, ²UCLA Health Department of Urology, Los Angeles, CA, USA

PURPOSE: Breast Implant Illness (BII) continues to be frequently reported among women with breast implants. The FDA's Manufacturer and User Facility Device Experience (MAUDE) database has provided some narrative data of common symptoms. To reproduce and better characterize various symptom clusters we surveyed women with both saline and silicone implants about having BII and their symptoms.

METHODS: A validated patient reported outcome symptom survey (PRO-CTCAE) was sent to groups of women with breast implants. The survey recorded self-reported presence of BII, implant type, and 64 different symptoms. We analyzed the data by breast implant type and grouped symptoms using factor analysis.