

Table 4. Publications and Quality of Evidence Criteria in 87 Articles Published in the Cosmetic Section of the Journal, July 2011 to June 2013

#	Authors	Mo. Yr.	Title	Cons.	Power Anal	Incl. Crit.	Incl. Rate (%)	Pros/ Retro	Cont. Group	Confounders	Sample Sizes	Measuring Device	Methodological Issues	Disc. Limits	Comm. Bias	LOE	CLEAR Rating (* Disc.)
1	Jewell ML, Baxter RA, Cox SE, et al.	7, 11	Randomized Sham-Controlled Trial to Evaluate the Safety and Effectiveness of a High-Intensity Focused Ultrasound Device for Noninvasive Body Sculpting	N	N	Y	N	P	Sham group	Different operators and measurers	58/59/63	Waist circumference, patient surveys, investigator reviews of photos.	Precision of measuring tape. Commercial bias. Nonconsecutive patients.	N	Y	2T	5D*
2	Maffi TR, Chang S, Friedland JA.	7, 11	Traditional Lower Blepharoplasty: Is Additional Support Necessary? A 30-Year Review	Y	N	Y	66.6	R	N	N	2007	Chart review	Nonstandardized photos. No measurements. No data on length of follow-up or missing photos.	Y	N	4T	4C*
3	Mojallal A, Ouyang D, Saint-Cyr M, Bui N, Brown SA, Rohrich RJ.	7, 11	Dorsal Aesthetic Lines in Rhinoplasty: A Quantitative Outcome-Based Assessment of the Component Dorsal Reduction Technique	Y	N	Y	N	R	N	N	100	Comparison of anatomical points on photos with computer assistance.	Subjectivity in point assignments. Lighting differences.	Y	N	4T	4C
4	Picavet VA, Prokopakis EP, Gabriëls L, Jorissen M, Hellings PW.	8, 11	High Prevalence of Body Dysmorphic Disorder Symptoms in Patients Seeking Rhinoplasty	Y	N	Y	72.9	P	Y	Controls not cosmetic patients	226/65	Patient surveys, scoring of photos by two investigators.	Expanded definition of body dysmorphic disorder.	N	N	3R	3B*
5	Corridi MR, Koltz PF, Chen R, Gusenoff JA.	8, 11	Changes in Quality of Life and Functional Status following Abdominal Contouring in the Massive Weight Loss Population	Y	N	Y	94	R	N	Concomitant procedures, rectus plication, bariatric surgery	48	Phone surveys	Small sample size, number of patients with plication not given, type 2 error possible with regard to	Y	N	4T	4C*

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6	Sforza M, Andjelkov K, Zaccheddu R, Nagi H, Colic M.	8, 11	Transversus Abdominis Plane Block Anesthesia in Abdominoplasties	N	N	N	N	P†	Y	Controls had no local anesthesia (block may act as local anesthetic)	14/14	Subjective pain scores, morphine use.	diastasis repair, no adjustment of alpha level for multiple comparisons. Small sample sizes, no power analysis, no inclusion rate, no comparison of block versus local anesthetic infusion to confirm superiority of block.	N	N	2T	5D
7	Cárdenas-Camarena L, Arenas-Quintana R, Robles-Cervantes J-A.	8, 11	Buttocks Fat Grafting: 14 Years of Evolution and Experience	Y	N	Y	100	R	N	Different surgeons, different times	492/132 /165	Complication rates	Chronology bias, no patient-derived data or measurements of results.	N	N	3T	4C
8	Trussler AP, Hatef D, Broussard GB, Brown S, Barton FE.	9, 11	The Viscoelastic Properties of the SMAS and Its Clinical Translation: Firm Support for the High SMAS Rhytidectomy.	Y	N	Y	100	P	Y	Applied tension varies	30	Tensiometer, biomechanical tissue studies	SMAS tension likely to change after suturing. Tension likely to be less and duration much longer in vivo.	Y	N	4T	2A
9	von Soest T, Kvalem IL, Skolleborg KC, Roald HE.	9, 11	Psychosocial Changes after Cosmetic Surgery: A 5-Year Follow-up Study.	N	N	N	48.7/41.9	P	Y	Controls did not have any surgery	201/838	Mailed surveys	Nonconsecutive patients, no inclusion rate, low response rate, women only, disproportionately breast surgery, no follow-up of control group.	Y (excellent)	N	2T	5D*

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10	Rohrich RJ, Ghavami A, Mojallal A.	9, 11	The Five-Step Lower Blepharoplasty: Blending the Eyelid-Cheek Junction	Y	N	Y	N	R	N	Effects of simultaneous face lifts	50	Computer-assisted photo measurements of ratios.	Combining right and left-sided data. No control or comparison group.	Y	N	4T	4C
11	Swanson E.	9, 11	Prospective Clinical Study Reveals Significant Reduction in Triglyceride Level and White Blood Cell Count after Liposuction and Abdominoplasty and No Change in Cholesterol Levels	Y	N	Y	66.4	P	Comparison of cohorts	Possible dietary changes	229/87/6	Blood tests	No untreated control group, no direct measurement of fat volumes or comparisons to body mass index.	N	N	4T	3B*
12	Rodby KA, Stepniak J, Eisenhut N, Lenz CW III	10, 11	Abdominoplasty with Suction Undermining and Plication of the Superficial Fascia without Drains: A Report of 113 Consecutive Patients	Y	N	Y	100	R	N	Electrodissection	113	Chart review	No comparison group. Reduced seromas may be caused by less electrodissection.	N	N	4T	4C*
13	Araco A, Araco F, Sorge R, Gravante G	10, 11	Sensitivity of the Nipple-Areola Complex and Areolar Pain following Aesthetic Breast Augmentation in a Retrospective Series of 1200 Patients: Periareolar versus Submammary Incision	Y	N	Y	93.5	R	Comparative cohort	Length of incision, exposure, different indications (e.g. tuberous breasts)	1033/189	Patient surveys	Important confounders include different exposure (risk of injury to deep innervation from 4th intercostal nerve) and incision length. Small treatment difference, possible Type I error.	Y	N	3T	4C
14	Graham DW, Heller J, Kurkjian TJ, Schaub TS, Rohrich RJ.	10, 11	Brow Lift in Facial Rejuvenation: A Systematic Literature Review of Open versus Endoscopic Techniques	N	N	Y	7.9	R	Comparative cohorts	Different surgeons, techniques, follow-up	15 studies	Surgeon opinion, complication rates.	Lack of reliable, quantitative measurements, no prospective studies, complication rates probably underreported.	Y	N	4T	5D

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15	Dini GM, Iurk LK, Corsi Ferreira MC, Ferreira LM.	11, 11	Grafts for Straightening Deviated Noses	N	N	Y	N	R	N	Graft donor site	50	Subjective grading of CT images	Nonconsecutive patients, selection bias, no objective measurements, no before and after photos. "No complications."	N	N	4T	5D
16	Lee MR, Unger JG, Rohrich RJ.	11, 11	Management of the Nasal Dorsum in Rhinoplasty: A Systematic Review of the Literature Regarding Technique, Outcomes, and Complications	N	N	Y	1.5	R	Comparative cohorts	Different surgeons and techniques, follow-up	83 studies	Surgeon opinion, complication rates.	Few prospective studies, lack of measurements and outcome studies, inadequate follow-up and description of complications.	Y, (excellent)	N	4T	5D
17	Faber C, Larson K, Amirlak B, Guyuron B.	12, 11	Use of Desmopressin for Unremitting Epistaxis following Septorhinoplasty and Turbinatectomy	Y	N	Y	100	R	N	Hypertension, other treatments for epistaxis	9	End of epistaxis.	Only 9 patients and no controls. Blood pressures not recorded for 6 patients at time of bleeding. Hypertension is a confounder.	Y	N	4T	4C
18	Elkhatib H, Buddhavarapu SR, Henna H, Kassem W.	12, 11	Abdominal Musculoaponeurotic System: Magnetic Resonance Imaging Evaluation before and after Vertical Plication of Rectus Muscle Diastasis in Conjunction with Lipoabdominoplasty.	Y	N	Y	77	P	N	Patient weight change (not recorded)	20	Measurements on MRI images.	Interobserver variations not tested, no control group, landmarks imprecise. Area and circumference calculations are subject to reading error and assume elliptical shape.	N	N	4T	3B
19	Liu TS,	1,	Long-Term Results of Face	N	N	Y	6.7	R	N	Makeup,	6	Patient	Very low	Y	N	3 T	5D

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	Owsley JQ.	12	Lift Surgery: Patient Photographs compared with Patient Satisfaction Ratings							jewelry, subsequent procedures		surveys, selected photos.	inclusion rate, selection bias, makeup and jewelry in postop. photos.				
20	Rohrich RJ, Hoxworth RE, Kurkjian TJ.	1, 12	The Role of the Columellar Strut in Rhinoplasty: Indications and Rationale.	N	N	N	N	R	N	Simultaneous tip procedures	App. 1500	Chart review	Few clinical details. This paper describes a classification scheme.	N	N	4 T	5D
21	Vallejo MC, Phelps AL, Ibinson JW, et al.	2, 12	Aprepitant plus Ondansetron Compared with Ondansetron Alone in Reducing Postoperative Nausea and Vomiting in Ambulatory Patients Undergoing Plastic Surgery	N	Y	Y	100	P†	Comparison cohort	Timing of ondansetron injection, effects of rescue treatments	75/75	Patient diaries, incidence of vomiting in PACU.	Confounders, did not include patient group treated with total I.V. anesthesia avoiding gas (known to cause nausea). Therapeutic vs. prophylactic. Commercial bias. Nonconsecutive patients.	Y	Y	2 T	5D
22	Patel SM, Daniel RK	3, 12	Indian American Rhinoplasty: An Emerging Ethnic Group	N	N	N	N	P,R (both)	N	Variety of surgical techniques	35 (20 who had surgery)	Patient surveys, computer morphing, case reports, anthropometric measurements.	Nonconsecutive patients, selection bias. Surveys were not conducted on women who had surgery. No outcome data.	N	N	4 T	5D
23	Sozer SO, Agullo FJ, Palladino H.	3, 12	Split Gluteal Muscle Flap for Autoprosthesis Buttock Augmentation	N	N	N	N	R	N	Effects of simultaneous liposuction and body lift procedures	200	Chart review, surgeon's opinion of selected photos.	No outcome data to support claims of high patient satisfaction. No measurement data to support	N	N	4 T	5D

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24	Swanson E.	4, 12	Prospective Outcome Study of 360 Patients Treated with Liposuction, Lipoabdominoplasty, and Abdominoplasty.	Y	N	Y	65.3	P	Comparison of cohort	Postoperative weight loss	219/128 /13	Patient interviews	efficacy and longevity compared with no muscle flap or fat injection. Short follow-up times, bias in reporting to nurses.	Y	N	2 T	3B*
25	Nagy MW, Vanek PF Jr.	4, 12	A Multicenter, Prospective, Randomized, Double-Blind, Controlled Clinical Trial Comparing VASER-Assisted Lipoplasty and Suction-Assisted Lipoplasty	N	N	N	N	P†	Comparison cohort	Aspirate volumes, cannulae	20	Skin perimeter measurements, lipocrits, questionnaires	Incorrect data adjustment and error, insufficient sample size to detect a small treatment effect, nonconsecutive patients, commercial bias.	N	Y	1 T	U*
26	Swanson E.	4, 12	A Measurement Study for Evaluation of Shape Changes and Proportions after Cosmetic Breast Surgery	N	N	N	N	Neither	N	N	5	Computer-assisted measurements on standardized photos, examples.	Describes measurement system. Minimal clinical data.	N	N	5 T	5D*
27	Schiller JD.	4, 12	Lysis of the Orbicularis Retaining Ligament and Orbicularis Oculi Insertion: A Powerful Modality for Lower Eyelid and Cheek Rejuvenation	Y	N	N	50	R	N	Possible skin effects of laser	80 (40 assessed)	Case reports, chart review, surgeon ratings of photos	Only half of the patients assessed. No comparison with standard technique. No objective measurements.	N	N	4 T	4C
28	Lazzeri D, Agostini T, Figus M, Nardi M,	4, 12	Blindness following Cosmetic Injections of the Face	--	--	Y	--	R	N	Numerous technical details	32	Literature review	Recommendations largely based on first principles. Limited data	N	N	5 R	5D

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29	Pantaloni M, Lazzeri S. Unger JG, Lee MR, Kwon RK, Rohrich RJ.	5, 12	A Multivariate Analysis of Nasal Tip Deprojection	Y	N	Y	83.3	R	N	Interaction of tip procedures	125	Measurements on photos, comparison of ratios.	available from published reports. Photos not calibrated with ruler, measurements are ratios or pixels. Mean follow-up time not indicated.	N	N	4 T	4C
30	Kane MAC, Lorenc ZP, Lin X, Smith SR.	5, 12	Validation of a Lip Fullness Scale for Assessment of Lip Augmentation	N	N	N	N	P	Y, control only	N	85/39	Physician assessment of photos and patients using 5-point scale.	5-point grading scale is highly subjective and qualitative. No physical measurements. No testing of treated patients. Commercial bias.	N	Y	3 D	5D
31	Khoury RK, Eisenmann-Klein M, Cardoso E, et al.	5, 12	Brava and Autologous Fat Transfer Is a Safe and Effective Breast Augmentation Alternative: Results of a 6-Year, 81-Patient, Prospective Multicenter Study	N	N	Y	87.6	P	N	N	81	MRI volume calculations	No control or comparison group. Comparison with published series invites confounders. Commercial bias.	N	Y	4 T	5D
32	Kim SM, Kim YS, Hong JW, Roh TS, Rah DK.	6, 12	An Analysis of the Experiences of 62 Patients with Moderate Complications after Full-Face Fat Injection for Augmentation	--	--	Y	--	R	N	Fresh versus frozen fat	62	Chart review	Acne and headaches may be coincidental. Fresh versus frozen fat is a confounder. Small numbers make comparisons unreliable.	Y	N	2 R	5D*
33	Maijers	6,	Prevalence of Rupture in	Y	N	Y	23.6	R	N	Different	112	MRI of	Lack of point	Y	N	4 T	4C*

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	MC, Niessen FB.	12	Poly Implant Prothèse Silicone Breast Implants, Recalled from the European Market in 2010							manufacturing processes		breasts	prevalence data for comparable implant styles.				
34	Hammond DC, Migliori MM, Caplin DA, Garcia ME, Phillips CA.	6, 12	Mentor Contour Profile Gel Implants: Clinical Outcomes at 6 Years.	N	N	Y	70	P	Comparisons between treatment indications	Different surgeons, centers, implant placement (submammary versus submuscular)	955	Complication and revision rates, MRI scans of breasts, chest circumferences.	Nonconsecutive patients, limited patient-derived data (e.g., firmness, size, satisfaction). No non-form-stable comparison cohort, commercial bias.	N	Y	2 D	5D
35	Erol ÖO.	7, 12	Tip Rhinoplasty in Broad Noses in a Turkish Population: Eurasian Noses.	N	N	N	N	R	N	Use of cartilage grafts, dome sutures, steroid injections	3800	Chart review, case reports	No comparison cohort or measurements, limited clinical data, selected cases.	N	N	4 T	5D
36	Han KH, Jeong JW, Kim JH, et al.	7, 12	Complete Septal Extension Grafts Using Porous High-Density Polyethylene Sheets for the Westernization of the Asian Nose	N	N	N	N	R	N	Effects of dorsal implants, shield grafts to tip, different fixation	58	Photographic measurements	Nonconsecutive patients, photos not calibrated and do not specifically measure nasal length, short follow-up times in some patients.	N	N	4 T	5D
37	McCarthy CM, Cano SJ, Klassen AF, et al.	7, 12	The Magnitude of Effect of Cosmetic Breast Augmentation on Patient Satisfaction and Health-Related Quality of Life	N	N	N	N	P	N	N	41	Mailed surveys	Short follow-up times, no complications data, nonconsecutive patients.	Y	Y	4 T	5D
38	Bonomi S, Salval A, Settembrini F,	7, 12	Inferiorly Based Parenchymal Flap Mammoplasty: A Safe, Reliable, and Versatile	N	N	N	N	R	N	N	83	Complication rates, patient and surgeon/nur	No measurements, lack of photographic	N	N	4 T	5D*

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	Gregorelli C, Musumarra G, Rapisarda V.		Technique for Breast Reduction and Mastopexy									se questionnaires	standardization				
39	Spear SL, Rottman SJ, Glicksman C, Brown M, Al-Attar A.	8, 12	Late Seromas after Breast Implants: Theory and Practice.	Y	N	Y	100	R	N	Multiple surgeons and techniques	25	Chart review	Multiple confounders, small sample sizes	Y	Y	4T	4C*
40	Swanson E.	8, 12	Photographic Measurements in 301 Cases of Liposuction and Abdominoplasty Reveal Fat Reduction without Redistribution	Y	Y	Y	70.7	P/R	Y	N	301/78	Photographic measurements	Lack of long-term follow-up and inclusion of other measurement techniques.	N	N	3T	3B*
41	Chong T, Coon D, Toy J, Purnell C, Michaels J, Rubin JP.	8, 12	Body Contouring in the Male Weight Loss Population: Assessing Gender as a Factor in Outcomes	Y	N	Y	100	R	N	Preoperative weight loss, different operations and resection weights	481	Recording of clinical data and complications	Important confounders, relatively small male sample size, unadjusted alpha level, possible Type I error.	Y	N	2R	4C
42	Coon D, Michaels J 5th, Gusenoff JA, Chong T, Purnell C, Rubin JP	8, 12	Hypothermia and Complications in Postbariatric Body Contouring	N	N	Y	N	R	Comparison cohort	Operating time, extent of dissection, use of Bovie, multiple surgeons	308/77	Recording of clinical data and complications	Confounders, noncontemporaneous control group.	Y	N	2R	5D
43	Agostini T, Lazzeri D, Pini A, et al.	8, 12	Wet and Dry Techniques for Structural Fat Graft Harvesting: Histomorphometric and Cell Viability Assessments of Lipoaspirated Samples	N	N	Y	N	P	Comparison cohort, same patient	N	65	Histologic examination and mitochondrial function	Did not include other tests of cell viability and apoptosis. No data on preadipocytes. Nonconsecutive	Y	N	5T	5D

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44	Shen H, Lv Y, Xu J-h, et al.	8, 12	Complications after Polyacrylamide Hydrogel Injection for Facial Soft-Tissue Augmentation in China: Twenty-four Cases and Their Surgical Management	--	--	Y	--	R	N	Methods, number, and volume of injections	24	Chart review, case reports	patients. Limited data on method and amount of injections. Total number of injections unknown. No comparison data with other fillers.	Y	N	5T	5D
45	Fukamizu H, Fujiwara M, Kim T, Matsushita Y, Tokura Y.	8, 12	Development of a Three-Microneedle Device for Hypodermic Drug Delivery and Clinical Application	N	N	N	N	P	N	Units of botulinum toxin injected	20	Surgeon assessment of wrinkles	No comparison with traditional needle. Commercial bias.	N	Y	4T	5D
46	Constantian MB	9, 12	What Motivates Secondary Rhinoplasty? A Study of 150 Consecutive Patients	Y	N	Y	100	R	N	N	150	Chart review, case reports	Minimal patient-derived outcome data. No comparison with primary rhinoplasty.	N	N	4R	4C*
47	Engel SJ, Patel NK, Morrison CM, et al.	9, 12	Operating Room Fires: Part II. Optimizing Safety	N	N	N	N	P	Comparison cohort, same patient	Timing of oxygen measurements	20	Oxygen concentration measurements	The order of measurements may have affected readings. Nonconsecutive patients.	Y	N	2T	5D
48	Trussler AP, Schaub TA, Byrd HS.	9, 12	Endoscopic Management of the Difficult Lower Eyelid: A Review of 300 Cases	N	N	N	N	R	N	Simultaneous facial procedures, previous surgery	300	Chart review and review of photographs	No measurements, no comparison cohort, missing some clinical data.	N	N	4T	5D
49	Popenko NA,	9, 12	The Virtual Focus Group: A Modern Methodology	--	N	N	N	P	Comparison	Ages, gender, ethnicity,	123/857 /1775	Survey responses	Narrow range of ages, gender,	Y	N	2D	5D

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	Devic Z, Karimi K, Wong B, JF.		for Facial Attractiveness Rating						cohort	vanity ("hotornot.com")			and ethnicity tested. Limited information on raters. Focus group still needed to initiate social network ratings. May oversolicit raters.				
50	Jain AK, Khan AM	9, 12	Stroke Volume Variations as a Guide for Fluid Resuscitation in Patients Undergoing Large-Volume Liposuction	N	N	Y	N	P†	Comparison cohort	Mean arterial blood pressure	15/15	Clinical and laboratory data	Arterial line is invasive. Blood pressure also guided fluid administration. Small sample sizes. Unusually large infusion and aspirate volumes.	Y	N	2T	5D
51	Sucupira E, Abramovitz A.	9, 12	A Simplified Method for Smile Enhancement: Botulinum Toxin Injection for Gummy Smile	N	N	N	N	R	N	Resting muscle tone	52	Measurements, patient and physician questionnaires	No control or placebo. Single case illustrated appears to be have a bigger smile pre-treatment. Difficult to standardize exertion and effect on lip tone. No standard deviations or <i>p</i> values in table.	N	N	4T	5D
52	Szychta P, Orfanotis G, Stewart KJ.	10, 12	Revision Otoplasty: An Algorithm	Y	N	Y	N	R	N	Different surgeons	36	Review of charts and photographs. Surgeon evaluations.	Minimal patient-derived outcome data. Little discussion of complications.	N	N	4T	4C
53	Persichetti	10,	Anterior Intercostal Artery	N	N	N	N	R	N	N	15	Chart	Nonstandardized	N	N	4T	5D

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	P, Tenna S, Brunetti B, Aveta A, Segreto F, Marangi GF.	12	Perforator Flap Autologous Augmentation in Bariatric Mastopexy									review. surgeon's opinion of result.	photographs, no measurements to support claims of autoaugmentation.				
54	Rohrich RJ, Kurkjian TJ, Hoxworth RE, Stephan PJ, Mojallal A.	10, 12	The Effect of the Columellar Strut Graft on Nasal Tip Position in Primary Rhinoplasty	Y	N	Y	N	R	N	Effects of interactions with soft tissue and skin	100	Photographic measurements	Noncalibrated, photos, ratios used instead of linear measurements.	Y	N	4T	4C
55	Aboudib JH, Serra F, de Castro CC.	10, 12	Gluteal augmentation: Technique, Indications, and Implant Selection	N	N	N	N	R	N	No mention of simultaneous liposuction	103	Anatomic study in cadavers. Complication rate. Surgeon assessment of patient satisfaction.	Follow-up times not provided, minimal clinical details, no comparison with other dissection planes, no patient-derived data.	N	N	4T	5D
56	van der Beek ESJ, Geenen R, de Heer FAG, van der Molen ABM, van Ramshorst B.	11, 12	Quality of Life Long-Term after Body Contouring Surgery following Bariatric Surgery: Sustained Improvement after 7 Years	Y	N	Y	54.1	R	N	Weight regain	33	Patient questionnaires	Small sample size and inclusion rate, almost all original procedures lap-bands, limited types of body contouring surgery (few lower body lifts and brachioplasties), reliance on surveys for weights. Weight	Y	N	4T	4C

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57	Serra F, Aboudib JH, Marques RG.	11, 12	Reducing Wound Complications in Gluteal Augmentation Surgery	Y	N	Y	N	P,R (both)	Historical comparison cohort	Simultaneous liposuction, different implant volumes	20/20	Complication rates	Small sample sizes, potential for Type I error, confounders, chronology bias.	Y	N	2T	4C
58	Dower R, Turner ML.	11, 12	Pilot Study of Timing of Biofilm Formation on Closed Suction Wound Drains	N	N	N	N	P	Same patient, contralateral side.	N	12	Microscopic analysis of drains	Small sample size, subjective grading, no confirmation of type of bacteria	Y (excellent)	N	5T	5D
59	Mestak O, Kullac R, Mestak J, Nosek A, Krajcova A, Sukop A.	11, 12	Evaluation of the Long-Term Stability of Sheath Plication Using Absorbable Sutures in 51 Patients with Diastasis of the Recti Muscles: An Ultrasonographic Study	N	N	N	N	R	10 nulliparous control patients	Effects of previous pregnancy	51/10	Measurements on abdominal ultrasound images	Nonconsecutive patients, no preoperative ultrasound exams, no comparison group treated with permanent sutures, controls were nulliparous with no surgery.	N	N	2T	5D*
60	Rohrich RJ, Liu JH.	11, 12	Defining the Infratip Lobule in Rhinoplasty: Anatomy, Pathogenesis of Abnormalities, and Correction Using an Algorithmic Approach	N	N	N	N	Neither	N	Soft tissue interactions		Case reports	No measurements or reporting of clinical data in consecutive patients.	N	N	5T	5,D
61	Rawlani V, Mustoe TA.	12, 12	The Staged Facelift: Addressing the Biomechanical Limitations of the Primary Rhytidectomy	Y	N	Y	100	R	N	Other facial procedures	47	Selected examples of results, complication rates, surgeon opinion of	No measurement or patient survey data. Inclusion rate unknown. Mean follow-up time not given.	N	N	4 T	4C*

#	Authors	Mo. Yr.	Title	Cons.	Power Anal	Incl. Crit.	Incl. Rate (%)	Pros/ Retro	Cont. Group	Confounders	Sample Sizes	Measuring Device	Methodological Issues	Disc. Limits	Comm. Bias	LOE	CLEAR Rating (* Disc.)
62	Jones BM, Lo SJ.	12, 12	How Long Does a Face Lift Last? Objective and Subjective Measurements over a 5-Year Period	N	N	Y	2.9	R	N	Other cosmetic procedures, multiple surgeons and techniques	50	Facial measurements, subjective ratings of photographs by surgeons and nurses	Reoperation rate does not account for patients who do not return in follow-up or elect to have more surgery. Nonrepresentative sample, no control group, small treatment effects, confounders include other rejuvenation procedures, and variable surgical techniques. Alar base position not an indicator of operative stigma.	N	N	4T	5D*
63	Lorenc ZP, Bank D, Kane M, Lin X, Smith S.	12, 12	Validation of a Four-Point Photographic Scale for the Assessment of Midface Volume Loss and/or Contour Deficiency	N	N	N	N	Neither	Y (untreated patients only)	N	60	Subjective assessment of photographs of controls.	Small number of raters did not evaluate oblique photographs, which are contemplated by scale. Grades subjective without clear measurement criteria. Limited nonwhite subjects. No testing in treated patients to determine efficacy. Commercial bias.	Y	Y	4D	5D
64	Iblher N,	12,	Morphometric Long-Term	Y	N	Y	N	R	Compa	Other facial	56/29	Measureme	No untreated	Y	N	3T	4C*

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	Manegold S, Porzelius C, Stark GB	12	Evaluation and Comparison of Brow Position and Shape after Endoscopic Forehead Lift and Transpalpebral Browpexy						rative cohort	procedures		nts on photographs, complication rates	control group. Photographs not calibrated, ratios used. No patient surveys. No group treated with upper blepharoplasties only.				
65	Park JH, Jin HR	12, 12	Use of Autologous Costal Cartilage in Asian Rhinoplasty	N	N	N	N	R	N	Other nasal procedures, method of fixation	83	Complications from chart review, patient telephone survey, surgeons' opinion of result	No comparison group treated with alloplastic or homologous graft material.	N	N	4T	5D*
66	Calobrace MB, Herdt DR, Cothron KJ.	1,13	Simultaneous Augmentation/Mastopexy: A Retrospective 5-Year Review of 332 Consecutive Cases	Y	N	Y	100	R	Comparison cohort	Some patients selected for staging, body mass indices, technique, published results from other surgeons	332/98	Chart reviews, recording of complication and reoperation rates	Staging of selected patients exposes the augmentation/mastopexy group to selection bias. More inverted-Ts and higher body mass indices for mastopexy only group. No augmentation-only group. Published results used instead.	Y	Y	3T	4C*
67	Bossert RP, Dreifuss S, Coon D, et al.	2,13	Liposuction of the Arm Concurrent with Brachioplasty in the Massive Weight Loss Patient: Is It Safe?	Y	N	Y	100	R	Comparison cohort	Body mass index	80/64	Chart reviews, recording of complications	Higher body mass indices in patients having liposuction.	Y	N	3T	3B*

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68	Fuller JC, Nguyen CN, Moulton-Barrett RE.	2, 13	Weight Reduction following Abdominoplasty: A Retrospective Case Review Pilot Study	Y	N	Y	33	R	N	N	20	Chart review and interviews with patients	Very low inclusion rate and small sample size, no lab tests to support hormonal theory, no comparison group. Weights not measured objectively (reliance on patient reports).	N	N	4T	4C
69	Coon D, Tuffaha S, Christensen J, Bonawitz SC.	2, 13	Plastic Surgery and Smoking: A Prospective Analysis of Incidence, Compliance, and Complications	Y	N	Y	100	R	Comparison cohort	Different procedures, techniques (e.g. vertical versus inverted-T breast reduction)	51/364	Complication rates	Distribution of procedures for two groups not provided. Unknown confounders possible. Relatively small sample size for smokers (51).	N	N	2R	3B
70	Serra F, Aboudib JH, Marques RG.	2, 13	Intramuscular Technique for Gluteal Augmentation: Determination and Quantification of Muscle Atrophy and Implant Position by Computed Tomographic Scan	N	N	Y	74	P	N	Disuse, atrophy	23	CT scans	Small differences may be within margin of error. Atrophy from disuse likely. Change at 12 months not significant.	Y	N	4T	5D
71	Beale EW, Rasko Y, Rohrich RJ.	3, 13	A 20-Year Experience with Secondary Rhytidectomy: A Review of Technique, Longevity, and Outcomes	Y	N	Y	100	R	N	N	60	Chart review, case presentations	Limited complications data. Longevity not necessarily equivalent to interval between procedures. Makeup, jewelry included in photos.	Y	N	4T	4C

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72	Guyuron B, Lee M, Larson K, Amirlak B.	3, 13	Endoscopic Correction of Frontal Bossing	Y	N	Y	N	R	N	N	10	Chart review, assessment of photographs by “6 randomly selected observers”	No measurements. No patient-derived data. Subjective scoring. Small sample size. No controls.	N	N	4T	4C
73	Monteiro PA, Guimarães P, Haddad A, Sabino Neto M, Lage FC, Ferreira LM.	3, 13	Striae Distensae after Breast Augmentation: Treatment Using the Nonablative Fractionated 1550-nm Erbium Glass Laser	N	N	Y	100	R	N	N	10	Photographs rated 0-10 for improvement by two plastic surgeons and patients.	Subjective scoring. No controls (striae may improve with time regardless). Small sample size. Different lighting on photographs.	N	N	4R	5D
74	Costa-Ferreira A, Rebelo M, Silva A, Váscenez LO, Amarante J.	3, 13	Scarpa Fascia Preservation during Abdominoplasty: Randomized Clinical Study of Efficacy and Safety.	Y	N	Y	N	P†	Comparative cohort	Electrodissection	80/80	Complication rates, patients surveys	Electrodissection is an uncontrolled confounding variable that could account for difference in seroma rates.	N	N	1T	4C
75	Neaman KC, Armstrong SD, Baca ME, Albert M, Vander Woude DL, Renucci JD.	3, 13	Outcomes of Traditional Cosmetic Abdominoplasty in a Community Setting: A Retrospective Analysis of 1008 Patients	Y	N	Y	100	R	N	Multiple surgeons, liposuction volumes, flap resection weights, electrodissection	1008	Chart review, complication and revision rates	6 surgeons (one with higher seroma rate), flap resection weight may be a confounding variable, no adjustment of alpha level for multiple comparisons. Liposuction volumes not reported consistently.	N	N	3R	4C

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76	Picavet VA, Gabriëls L, Grietens J, Jorissen M, Prokopakis EP, Hellings PW.	4, 13	Preoperative Symptoms of Body Dysmorphic Disorder Determine Postoperative Satisfaction and Quality of Life in Aesthetic Rhinoplasty	N	N	Y	92	P	Y	Different baseline test scores	166/100	Patient surveys, photographic scoring by surgeons	Most surgeons used electrodissection, likely related to seroma risk. Postoperative test results not compared with preoperative test results. Different baseline values not considered. Incorrect definition of body dysmorphic disorder. Control group noncosmetic and not used for before/after comparisons.	N	N	1R	U
77	Bassetto F, Turra G, Salmaso R, Lancerotto L, Del Vecchio DA.	4, 13	Autologous Injectable Dermis: A Clinical and Histological Study	N	N	N	N	R	N	N	16/3	Photographs, histological examination	No direct or photographic measurements. No control group or comparison with fat injection.	N	N	4T	5D
78	Persichetti P, Palazzolo D, Tenna S, Poccia I, Abbruzzese F, Trombetta M.	4, 13	Dermal Filler Complications from Unknown Biomaterials: Identification by Attenuated Total Reflectance Spectroscopy	N	N	N	N	R	Y	Presence of hyaluronic acid in skin	7 patients, 10 samples from manufacturers	Physical examination, spectroscopy, case reports	Hyaluronic acid is present normally in skin. Small sample size. Patients did not have clinical data to verify injection material.	Y	N	4D	5D
79	Nuzzi LC,	4,	Psychosocial Impact of	N	N	Y	N	P	Y	Body mass	47/92	Patient	Higher body	Y	N	2R	5D

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	Cerrato FE, Erikson CR et al.	13	Adolescent Gynecomastia: A Prospective Case-Control Study							index		surveys	mass index in controls. Lack of specificity of tests to condition. Ad hoc survey of controls showed some may have had gynecomastia. No surgical outcome data. No power analysis. Nonconsecutive patients.				
80	Mioton LM, Buck DW II, Gart MS, Hanwright PJ, Wang E, Kim JYS.	4, 13	A Multivariate Regression Analysis of Panniculectomy: Does Plastic Surgery Training Matter?	N	N	Y	100	R	Comparison of cohorts	Age, body mass index, comorbidities, resection weights	694/260	National Surgical Quality Improvement Database complication and reoperation rates	Multiple confounders. Resection weights unknown. Plastic surgeons may treat more aesthetically conscious patients.	Y	N	2R	5D
81	Gatherwright J, Liu MT, Amirlak B, Gliniak C, Totonchi A, Guyuron B.	5, 13	The Contribution of Endogenous and Exogenous Factors to Male Alopecia: A Study of Identical Twins	Y	N	Y	34.8 % (testosterone level)	Neither	Y, identical twins	Area of scalp examined	46/46	Photographic measurements of hair loss, saliva testosterone levels, questionnaires.	Alpha level not adjusted for multiple comparisons. Type I errors possible. Hair-thinning assessment subjective. Numerous confounders, known and unknown.	N	N	3R	4C
82	Spear SL, Sinkin JC, Al-Attar A.	5, 13	Porcine Acellular Dermal Matrix (Strattice) in Primary and Revision Cosmetic Breast Surgery	Y	N	Y	86.7	R	N	Tissue effects of simultaneous procedures	39	Chart reviews	No comparison or control group. Commercial bias.	N	Y	4T	4C

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83	Aygit AC, Basaran K, Mercan ES.	5, 13	Transaxillary Totally Subfascial Breast Augmentation with Anatomical Breast Implants: Review of 27 Cases	Y	N	Y	N	R	N	Implant size	27	Chart reviews, photographs	Small sample size. No comparative cohort. Limited patient-derived data. Implants appear low in photos. Larger implants excluded from study.	Y	N	4T	4C
84	Swanson E	5, 13	Prospective Photographic Measurement Study of 196 Cases of Breast Augmentation, Mastopexy, Augmentation/Mastopexy, and Breast Reduction	Y	Y	Y	88.3	P	Comparative cohorts	N	34/34/86/35/7	Photographic measurements	Limited patient follow-up times.	Y	N	2T	2A
85	Swanson E	5, 13	Prospective Outcome Study of 225 Cases of Breast Augmentation	Y	N	Y	80.1	P	N	N	225	Patient interviews and follow-up telephone surveys	Short follow-up times, saline implants primarily.	Y	N	4T	2A
86	Hardwicke JT, Bechar J, Skillman JM.	6, 13	Are Systemic Antibiotics Indicated in Aesthetic Breast Surgery? A Systematic Review of the Literature	Y	N	Y	N	R, systematic review	Comparison of cohorts	Multiple surgeons and centers	2971	Meta-analysis and review of published controlled studies.	Few studies featuring small sample sizes, limited power. Various antibiotics used. Multiple centers and surgeons.	Y	N	2T	3B
87	del Yerro JLM, Vegas MR, Fernandez V et al.	6, 13	Selecting the Implant Height in Breast Augmentation with Anatomical Prosthesis: the "Number Y"	Y	N	Y	100	R	N	Implant volume, rotation, shape in vivo	3636	Surgeons' opinion. Calculation of a ratio.	No measurements or patient-derived data. No comparison with round implants.	N	Y	4T	4C

L.O.E., level of evidence; cons., consecutive; anal., analysis; incl, inclusion; cont., control; disc, discussion, comm., commercial.
Note: Articles not indicating whether the patients were consecutive were deemed to represent nonconsecutive patients.

*Discussion accompanied article.

†Randomization included.