BIBLIOGRAPHIE

1. Neumar RW, Otto CW, Link MS, et al. Part 8: adult advanced cardiovascular life support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation 2010; 122:S729.
2. Berg RA, Hemphill R, Abella BS, et al. Part 5: adult basic life support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation 2010; 122:S685.
3. Covino BG, Vasallo HG. Local anesthetics mechanisms of action and clinical use, Grune & Stratton, New York 1976. p.90.
4. McCreight, A, Stephan, M. Local and regional anesthesia. In: Textbook of Pediatric Emergency Procedures, 2nd edition, King, C, Henretig, FM (Eds), Lippincott, Williams, & Wilkins, Philadelphia 2008. p.439.
5. Tetzlaff JE. The pharmacology of local anesthetics. Anesthesiol Clin North America 2000; 18:217.
6. Donofrio LM. Fat distribution: a morphologic study of the aging face. Dermatol Surg 2000; 26:1107.
7. Rohrich RJ, Pessa JE, Ristow B. The youthful cheek and the deep medial fat compartment. Plast Reconstr Surg 2008; 121:2107.
8. Shaw RB Jr, Katzel EB, Koltz PF, et al. Aging of the mandible and its aesthetic implications. Plast Reconstr Surg 2010; 125:332.
9. Carruthers J, Carruthers A. A prospective, randomized, parallel group study analyzing the effect of BTX-A (Botox) and nonanimal sourced hyaluronic acid (NASHA, Restylane) in combination compared with NASHA (Restylane) alone in severe glabellar rhytides in adult female subjects: treatment of severe glabellar rhytides with a hyaluronic acid derivative compared with the derivative and BTX-A. Dermatol Surg 2003; 29:802.
10. Patel MP, Talmor M, Nolan WB. Botox and collagen for glabellar furrows: advantages of combination therapy. Ann Plast Surg 2004; 52:442.
11. Carruthers JD, Carruthers A. Facial sculpting and tissue augmentation. Dermatol Surg 2005; 31:1604.
12. Kane MA. Treatment of tear trough deformity and lower lid bowing with injectable hyaluronic acid. Aesthetic Plast Surg 2005; 29:363.
13. Goldberg DJ. Correction of tear trough deformity with novel porcine collagen dermal filler (Dermicol-P35). Aesthet Surg J 2009; 29:S9.

14. Baumann LS, Shamban AT, Lupo MP, et al. Comparison of smooth-gelhyaluronic acid dermal fillers with cross-linked bovine collagen: a multicenter, double-masked, randomized, within-subject study. Dermatol Surg 2007; 33 Suppl 2:S128.
15. Moers-Carpi M, Vogt S, Santos BM, et al. A multicenter, randomized trial comparing calcium hydroxylapatite to two hyaluronic acids for treatment of nasolabial folds. Dermatol Surg 2007; 33 Suppl 2:S144.
16. Arlette JP, Trotter MJ. Anatomic location of hyaluronic acid filler material injected into nasolabial fold: a histologic study. Dermatol Surg 2008; 34 Suppl 1:S56.
17. Lupo MP, Smith SR, Thomas JA, et al. Effectiveness of Juvéderm Ultra Plus dermal filler in the treatment of severe nasolabial folds. Plast Reconstr Surg 2008; 121:289.
18. Salles AG, Lotierzo PH, Gimenez R, et al. Evaluation of the poly-L-lactic acid implant for treatment of the nasolabial fold: 3-year follow-up evaluation. Aesthetic Plast Surg 2008; 32:753.
19. Cohen SR, Holmes RE. Artecoll: a long-lasting injectable wrinkle filler material: Report of a controlled, randomized, multicenter clinical trial of 251 subjects. Plast Reconstr Surg 2004; 114:964.
20. Cohen SR, Berner CF, Busso M, et al. ArteFill: a long-lasting injectable wrinkle filler material--summary of the U.S. Food and Drug Administration trials and a progress report on 4- to 5-year outcomes. Plast Reconstr Surg 2006; 118:64S.
21. Jansen DA, Graivier MH. Evaluation of a calcium hydroxylapatite-based implant (Radiesse) for facial soft-tissue augmentation. Plast Reconstr Surg 2006; 118:22S.
22. Perkins NW, Smith SP Jr, Williams EF 3rd. Perioral rejuvenation: complementary techniques and procedures. Facial Plast Surg Clin North Am 2007; 15:423.
23. Tzikas TL. A 52-month summary of results using calcium hydroxylapatite for facial soft tissue augmentation. Dermatol Surg 2008; 34 Suppl 1:S9.
24. De Boulle K, Swinberghe S, Engman M, Shoshani D. Lip augmentation and contour correction with a ribose cross-linked collagen dermal filler. J Drugs Dermatol 2009; 8:1.
25. Moscona RA, Fodor L. A retrospective study on liquid injectable silicone for lip augmentation: long-term results and patient satisfaction. J Plast Reconstr Aesthet Surg 2010; 63:1694.
26. Pallua N, Wolter TP. A 5-year assessment of safety and aesthetic results after facial soft-tissue augmentation with polyacrylamide hydrogel (Aquamid): a

prospective multicenter study of 251 patients. Plast Reconstr Surg 2010; 125:1797.
27. Carruthers J, Klein AW, Carruthers A, et al. Safety and efficacy of nonanimal stabilized hyaluronic acid for improvement of mouth corners. Dermatol Surg 2005; 31:276.
28. Graivier MH, Bass LS, Busso M, et al. Calcium hydroxylapatite (Radiesse) for correction of the mid- and lower face: consensus recommendations. Plast Reconstr Surg 2007; 120:55S.
29. Solish NJ. Assessment of recovery time for the collagen products Dermicol-P35 27G and 30G. J Am Acad Dermatol 2010; 62:824.
30. Weinkle S. Injection techniques for revolumization of the perioral region with hyaluronic acid. J Drugs Dermatol 2010; 9:367.
31. Schierle CF, Casas LA. Nonsurgical rejuvenation of the aging face with injectable poly-L-lactic acid for restoration of soft tissue volume. Aesthet Surg J 2011; 31:95.
32. Butterwick KJ. Rejuvenation of the aging hand. Dermatol Clin 2005; 23:515.
33. Man J, Rao J, Goldman M. A double-blind, comparative study of nonanimal-stabilized hyaluronic acid versus human collagen for tissue augmentation of the dorsal hands. Dermatol Surg 2008; 34:1026.
34. Sadick NS, Anderson D, Werschler WP. Addressing volume loss in hand rejuvenation: a report of clinical experience. J Cosmet Laser Ther 2008; 10:237.
35. Marmur ES, Al Quran H, De Sa Earp AP, Yoo JY. A five-patient satisfaction pilot study of calcium hydroxylapatite injection for treatment of aging hands. Dermatol Surg 2009; 35:1978.
36. Mazzuco R, Hexsel D. Poly-L-lactic acid for neck and chest rejuvenation. Dermatol Surg 2009; 35:1228.
37. de Lacerda DA, Zancanaro P. Filler rhinoplasty. Dermatol Surg 2007; 33 Suppl 2:S207.
38. Jacovella PF. Aesthetic nasal corrections with hydroxylapatite facial filler. Plast Reconstr Surg 2008; 121:338e.
39. Pitkin L, Rimmer J, Lo S, Hosni A. Aesthetic augmentation rhinoplasty with Permacol: how we do it. Clin Otolaryngol 2008; 33:615.
40. Rokhsar C, Ciocon DH. Nonsurgical rhinoplasty: an evaluation of injectable calcium hydroxylapatite filler for nasal contouring. Dermatol Surg 2008; 34:944.
41. Hopkins C, Walker R, Lee S, Roberts D. Permacol in augmentation rhinoplasty: how we do it. Clin Otolaryngol 2009; 34:68.

42. Stupak HD, Moulthrop TH, Wheatley P, et al. Calcium hydroxylapatite gel (Radiesse) injection for the correction of postrhinoplasty contour deficiencies and asymmetries. Arch Facial Plast Surg 2007; 9:130.
43. Valantin MA, Aubron-Olivier C, Ghosn J, et al. Polylactic acid implants (New-Fill) to correct facial lipoatrophy in HIV-infected patients: results of the open-label study VEGA. AIDS 2003; 17:2471.
44. Jones DH, Carruthers A, Orentreich D, et al. Highly purified 1000-cSt silicone oil for treatment of human immunodeficiency virus-associated facial lipoatrophy: an open pilot trial. Dermatol Surg 2004; 30:1279.
45. Moyle GJ, Lysakova L, Brown S, et al. A randomized open-label study of immediate versus delayed polylactic acid injections for the cosmetic management of facial lipoatrophy in persons with HIV infection. HIV Med 2004; 5:82.
46. Burgess CM, Quiroga RM. Assessment of the safety and efficacy of poly-L-lactic acid for the treatment of HIV-associated facial lipoatrophy. J Am Acad Dermatol 2005; 52:233.
47. Moyle GJ, Brown S, Lysakova L, Barton SE. Long-term safety and efficacy of poly-L-lactic acid in the treatment of HIV-related facial lipoatrophy. HIV Med 2006; 7:181.
48. Silvers SL, Eviatar JA, Echavez MI, Pappas AL. Prospective, open-label, 18-month trial of calcium hydroxylapatite (Radiesse) for facial soft-tissue augmentation in patients with human immunodeficiency virus-associated lipoatrophy: one-year durability. Plast Reconstr Surg 2006; 118:34S.
49. Loutfy MR, Raboud JM, Antoniou T, et al. Immediate versus delayed polyalkylimide gel injections to correct facial lipoatrophy in HIV-positive patients. AIDS 2007; 21:1147.
50. Levy RM, Redbord KP, Hanke CW. Treatment of HIV lipoatrophy and lipoatrophy of aging with poly-L-lactic acid: a prospective 3-year follow-up study. J Am Acad Dermatol 2008; 59:923.
51. Mest DR, Humble GM. Retreatment with injectable poly-l-lactic acid for HIV-associated facial lipoatrophy: 24-month extension of the Blue Pacific study. Dermatol Surg 2009; 35 Suppl 1:350.
52. James J, Carruthers A, Carruthers J. HIV-associated facial lipoatrophy. Dermatol Surg 2002; 28:979.
53. Carruthers A, Liebeskind M, Carruthers J, Forster BB. Radiographic and computed tomographic studies of calcium hydroxylapatite for treatment of HIV-associated facial lipoatrophy and correction of nasolabial folds. Dermatol Surg 2008; 34 Suppl 1:S78.

54. Carruthers A, Carruthers J. Evaluation of injectable calcium hydroxylapatite for the treatment of facial lipoatrophy associated with human immunodeficiency virus. Dermatol Surg 2008; 34:1486.
55. Ho D, Jagdeo J. Safety and Efficacy of a Volumizing Hyaluronic Acid Filler for Treatment of HIV-Associated Facial Lipoatrophy. JAMA Dermatol 2017; 153:61.
56. Collins E, Wagner C, Walmsley S. Psychosocial impact of the lipodystrophy syndrome in HIV infection. AIDS Read 2000; 10:546.
57. Hanke CW, Redbord KP. Safety and efficacy of poly-L-lactic acid in HIV lipoatrophy and lipoatrophy of aging. J Drugs Dermatol 2007; 6:123.
58. Kavouni A, Catalan J, Brown S, et al. The face of HIV and AIDS: can we erase the stigma? AIDS Care 2008; 20:485.
59. Smith KC. Repair of acne scars with Dermicol-P35. Aesthet Surg J 2009; 29:S16.
60. Beer K. A single-center, open-label study on the use of injectable poly-L-lactic acid for the treatment of moderate to severe scarring from acne or varicella. Dermatol Surg 2007; 33 Suppl 2:S159.
61. Sadick NS, Palmisano L. Case study involving use of injectable poly-L-lactic acid (PLLA) for acne scars. J Dermatolog Treat 2009; 20:302.
62. Sadove R. Injectable poly-L: -lactic acid: a novel sculpting agent for the treatment of dermal fat atrophy after severe acne. Aesthetic Plast Surg 2009; 33:113.
63. Ralston JP, Blume JE, Zeitouni NC. Treatment of postoperative soft tissue loss with injectable poly-L-lactic acid. J Drugs Dermatol 2006; 5:1000.
64. Kasper DA, Cohen JL, Saxena A, Morganroth GS. Fillers for postsurgical depressed scars after skin cancer reconstruction. J Drugs Dermatol 2008; 7:486.
65. Rendon MI, Keeling J. Poly-L-lactic acid for the treatment of trauma-induced facial lipoatrophy and asymmetry. Cutis 2008; 81:218.
66. Franz FP, Blocksma R, Brundage SR, Ringler SL. Massive injection of liquid silicone for hemifacial atrophy. Ann Plast Surg 1988; 20:140.
67. Onesti MG, Monarca C, Rizzo MI, et al. Minimally invasive combined treatment for Parry-Romberg syndrome. Aesthetic Plast Surg 2009; 33:452.
68. Onesti MG, Troccola A, Scuderi N. Volumetric correction using poly-L-lactic acid in facial asymmetry: Parry Romberg syndrome and scleroderma. Dermatol Surg 2009; 35:1368.
69. Schweiger ES, Riddle CC, Tonkovic-Capin V, Aires DJ. Successful treatment with injected hyaluronic acid in a patient with lip asymmetry after surgical correction of cleft lip. Dermatol Surg 2008; 34:717.

70. Reytan N, Gutsche N, Rzany B. Aesthetic correction of the upper lip in a patient with mandibular prognathia with a novel long-lasting collagen filler: a case report. Dermatol Surg 2007; 33:1274.
71. Vagefi MR, McMullan TF, McCann JD, Anderson RL. Osteoplasty using calcium hydroxylapatite filler. Ophthal Plast Reconstr Surg 2008; 24:190.
72. Taban M, Mancini R, Nakra T, et al. Nonsurgical management of congenital eyelid malpositions using hyaluronic Acid gel. Ophthal Plast Reconstr Surg 2009;25:259.
73. Mancini R, Khadavi NM, Goldberg RA. Nonsurgical management of upper eyelid margin asymmetry using hyaluronic acid gel filler. Ophthal Plast Reconstr Surg 2011; 27:1.
74. Naik MN, Ali MJ, Das S, Honavar SG. Nonsurgical management of epiblepharon using hyaluronic acid gel. Ophthal Plast Reconstr Surg 2010; 26:215.
75. Mancini R, Taban M, Lowinger A, et al. Use of hyaluronic Acid gel in the management of paralytic lagophthalmos: the hyaluronic Acid gel "gold weight". Ophthal Plast Reconstr Surg 2009; 25:23.
76. Vagefi MR, McMullan TF, Burroughs JR, et al. Injectable calcium hydroxylapatite for orbital volume augmentation. Arch Facial Plast Surg 2007; 9:439.
77. Kotlus BS, Dryden RM. Correction of anophthalmic enophthalmos with injectable calcium hydroxylapatite (Radiesse). Ophthal Plast Reconstr Surg 2007; 23:313.
78. Panettiere P, Marchetti L, Accorsi D. Filler injection enhances the projection of the reconstructed nipple: an original easy technique. Aesthetic Plast Surg 2005; 29:287.
79. Lennox K, Beer KR. Nipple contouring with hyaluronics postmastectomy. J Drugs Dermatol 2007; 6:1030.
80. Schulman MR, Lipper J, Skolnik RA. Correction of chest wall deformity after implant-based breast reconstruction using poly-L-lactic acid (Sculptra). Breast J 2008; 14:92.
81. Hertegård S, Hallén L, Laurent C, et al. Cross-linked hyaluronan used as augmentation substance for treatment of glottal insufficiency: safety aspects and vocal fold function. Laryngoscope 2002; 112:2211.
82. Hertegård S, Hallén L, Laurent C, et al. Cross-linked hyaluronan versus collagen for injection treatment of glottal insufficiency: 2-year follow-up. Acta Otolaryngol 2004; 124:1208.
83. Remacle M, Lawson G. Results with collagen injection into the vocal folds for medialization. Curr Opin Otolaryngol Head Neck Surg 2007; 15:148.

84. Min JY, Hong SD, Kim K, Son YI. Long-term results of Artecoll injection laryngoplasty for patients with unilateral vocal fold motion impairment: safety and clinical efficacy. Arch Otolaryngol Head Neck Surg 2008; 134:490.
85. Rosen CA, Gartner-Schmidt J, Casiano R, et al. Vocal fold augmentation with calcium hydroxylapatite: twelve-month report. Laryngoscope 2009; 119:1033.
86. Pierre S, Liew S, Bernardin A. Basics of dermal filler rheology. Dermatol Surg 2015; 41 Suppl 1:S120.
87. Gladstone HB, Cohen JL. Adverse effects when injecting facial fillers. Semin Cutan Med Surg 2007; 26:34.
88. Dinehart SM, Henry L. Dietary supplements: altered coagulation and effects on bruising. Dermatol Surg 2005; 31:819.
89. Lafaille P, Benedetto A. Fillers: contraindications, side effects and precautions. J Cutan Aesthet Surg 2010; 3:16.
90. Hirsch RJ, Stier M. Complications of soft tissue augmentation. J Drugs Dermatol 2008; 7:841.
91. Cohen JL. Understanding, avoiding, and managing dermal filler complications. Dermatol Surg 2008; 34 Suppl 1:S92.
92. Monheit GD, Rohrich RJ. The nature of long-term fillers and the risk of complications. Dermatol Surg 2009; 35 Suppl 2:1598.
93. Rohrich RJ, Monheit G, Nguyen AT, et al. Soft-tissue filler complications: the important role of biofilms. Plast Reconstr Surg 2010; 125:1250.
94. Steinsapir KD, Woodward JA. Chlorhexidine Keratitis: Safety of Chlorhexidine as a Facial Antiseptic. Dermatol Surg 2017; 43:1.
95. Levy PM, De Boulle K, Raspaldo H. Comparison of injection comfort of a new category of cohesive hyaluronic acid filler with preincorporated lidocaine and a hyaluronic acid filler alone. Dermatol Surg 2009; 35 Suppl 1:332.
96. Levy PM, De Boulle K, Raspaldo H. A split-face comparison of a new hyaluronic acid facial filler containing pre-incorporated lidocaine versus a standard hyaluronic acid facial filler in the treatment of naso-labial folds. J Cosmet Laser Ther 2009; 11:169.
97. Weinkle SH, Bank DE, Boyd CM, et al. A multi-center, double-blind, randomized controlled study of the safety and effectiveness of Juvéderm injectable gel with and without lidocaine. J Cosmet Dermatol 2009; 8:205.
98. Raspaldo H, De Boulle K, Levy PM. Longevity of effects of hyaluronic acid plus lidocaine facial filler. J Cosmet Dermatol 2010; 9:11.
99. Brandt F, Bank D, Cross SL, Weiss R. A lidocaine-containing formulation of large-gel particle hyaluronic acid alleviates pain. Dermatol Surg 2010; 36 Suppl 3:1876.

100. Lupo MP, Swetman G, Waller W. The effect of lidocaine when mixed with large gel particle hyaluronic acid filler tolerability and longevity: a six-month trial. J Drugs Dermatol 2010; 9:1097.
101. Monheit GD, Campbell RM, Neugent H, et al. Reduced pain with use of proprietary hyaluronic acid with lidocaine for correction of nasolabial folds: a patient-blinded, prospective, randomized controlled trial. Dermatol Surg 2010; 36:94.
102. Buck DW 2nd, Alam M, Kim JY. Injectable fillers for facial rejuvenation: a review. J Plast Reconstr Aesthet Surg 2009; 62:11.
103. Donofrio LM. Soft-tissue augmentation. In: Fitzpatrick, 7th ed, Wolff K, Goldsmith LA, Katz SI, et al (Eds), McGraw-Hill, 2008. Vol 2, p.2380.
104. Matarasso SL, Carruthers JD, Jewell ML, Restylane Consensus Group. Consensus recommendations for soft-tissue augmentation with nonanimal stabilized hyaluronic acid (Restylane). Plast Reconstr Surg 2006; 117:3S.
105. Lemperle G, Rullan PP, Gauthier-Hazan N. Avoiding and treating dermal filler complications. Plast Reconstr Surg 2006; 118:92S.
106. Bachmann F, Erdmann R, Hartmann V, et al. The spectrum of adverse reactions after treatment with injectable fillers in the glabellar region: results from the Injectable Filler Safety Study. Dermatol Surg 2009; 35 Suppl 2:1629.
107. Georgescu D, Jones Y, McCann JD, Anderson RL. Skin necrosis after calcium hydroxylapatite injection into the glabellar and nasolabial folds. Ophthal Plast Reconstr Surg 2009; 25:498.
108. Grunebaum LD, Bogdan Allemann I, Dayan S, et al. The risk of alar necrosis associated with dermal filler injection. Dermatol Surg 2009; 35 Suppl 2:1635.
109. Beleznay K, Humphrey S, Carruthers JD, Carruthers A. Vascular compromise from soft tissue augmentation: experience with 12 cases and recommendations for optimal outcomes. J Clin Aesthet Dermatol 2014; 7:37.
110. Glaich AS, Cohen JL, Goldberg LH. Injection necrosis of the glabella: protocol for prevention and treatment after use of dermal fillers. Dermatol Surg 2006; 32:276.
111. Kim DW, Yoon ES, Ji YH, et al. Vascular complications of hyaluronic acid fillers and the role of hyaluronidase in management. J Plast Reconstr Aesthet Surg 2011; 64:1590.
112. Hirsch RJ, Cohen JL, Carruthers JD. Successful management of an unusual presentation of impending necrosis following a hyaluronic acid injection embolus and a proposed algorithm for management with hyaluronidase. Dermatol Surg 2007; 33:357.

113. Dayan SH, Arkins JP, Mathison CC. Management of impending necrosis associated with soft tissue filler injections. J Drugs Dermatol 2011; 10:1007.
114. Andre P, Fléchet ML. Angioedema after ovine hyaluronidase injection for treating hyaluronic acid overcorrection. J Cosmet Dermatol 2008; 7:136.
115. Kang MS, Park ES, Shin HS, et al. Skin necrosis of the nasal ala after injection of dermal fillers. Dermatol Surg 2011; 37:375.
116. McCleve DE, Goldstein JC. Blindness secondary to injections in the nose, mouth, and face: cause and prevention. Ear Nose Throat J 1995; 74:182.
117. Park SW, Woo SJ, Park KH, et al. Iatrogenic retinal artery occlusion causedby cosmetic facial filler injections. Am J Ophthalmol 2012; 154:653.
118. Lazzeri D, Agostini T, Figus M, et al. Blindness following cosmetic injections of the face. Plast Reconstr Surg 2012; 129:995.
119. Beleznay K, Carruthers JD, Humphrey S, Jones D. Avoiding and Treating Blindness From Fillers: A Review of the World Literature. Dermatol Surg 2015; 41:1097.
120. Christensen L. Normal and pathologic tissue reactions to soft tissue gel fillers. Dermatol Surg 2007; 33 Suppl 2:S168.
121. Braun M, Braun S. Nodule formation following lip augmentation using porcine collagen-derived filler. J Drugs Dermatol 2008; 7:579.
122. Smith KC. Reversible vs. nonreversible fillers in facial aesthetics: concerns and considerations. Dermatol Online J 2008; 14:3.
123. DasGupta BR. Structures of botulinum neurotoxin, its functional domains, and perspectives on the crystalline type A toxin. In: Therapy with Botulinum Toxin, Jankovic J, Hallet M (Eds), Marcel Dekker, 1994. p.15.
124. Schantz EJ, Johnson EA. Botulinum toxin: the story of its development for the treatment of human disease. Perspect Biol Med 1997; 40:317.
125. Burke GS. Notes on Bacillus botulinus. J Bacteriol 1919; 4:555.
126. Aoki KR, Guyer B. Botulinum toxin type A and other botulinum toxin serotypes: a comparative review of biochemical and pharmacological actions. Eur J Neurol 2001; 8 Suppl 5:21.
127. Dolly JO, Lisk G, Foran PG, et al. Insights into the extended duration of neuroparalysis by botulinum neurotoxin A relative to the other shorter-acting serotypes: differences between motor nerve terminals and cultured neurons. In: Scientific and Therapeutic Aspects of Botulinum Toxin, 1st ed, Brin MF, Jankovic J, Hallett M (Eds), Lippincott Williams & Wilkins, Philadelphia, PA 2002. p.91.
128. Scott AB. Botulinum toxin injection into extraocular muscles as an alternative to strabismus surgery. Ophthalmology 1980; 87:1044.

129. Wabbels B, Reichel G, Fulford-Smith A, et al. Double-blind, randomised, parallel group pilot study comparing two botulinum toxin type A products for the treatment of blepharospasm. J Neural Transm (Vienna) 2011; 118:233.
130. Carruthers J, Stubbs HA. Botulinum toxin for benign essential blepharospasm, hemifacial spasm and age-related lower eyelid entropion. Can J Neurol Sci 1987; 14:42.
131. Borodic GE, Cheney M, McKenna M. Contralateral injections of botulinum A toxin for the treatment of hemifacial spasm to achieve increased facial symmetry. Plast Reconstr Surg 1992; 90:972.
132. Tsui JK, Eisen A, Mak E, et al. A pilot study on the use of botulinum toxin in spasmodic torticollis. Can J Neurol Sci 1985; 12:314.
133. Carruthers JD, Carruthers JA. Treatment of glabellar frown lines with C. botulinum-A exotoxin. J Dermatol Surg Oncol 1992; 18:17.
134. Carruthers A, Carruthers J. Botulinum toxin type A: history and current cosmetic use in the upper face. Semin Cutan Med Surg 2001; 20:71.
135. Carruthers J, Carruthers A. Botulinum toxin A in the mid and lower face and neck. Dermatol Clin 2004; 22:151.
136. Lowe NJ, Yamauchi P. Cosmetic uses of botulinum toxins for lower aspects of the face and neck. Clin Dermatol 2004; 22:18.
137. Dayan SH, Maas CS. Botulinum toxins for facial wrinkles: beyond glabellar lines. Facial Plast Surg Clin North Am 2007; 15:41.
138. Fagien S, Carruthers JD. A comprehensive review of patient-reported satisfaction with botulinum toxin type a for aesthetic procedures. Plast Reconstr Surg 2008; 122:1915.
139. Carruthers A, Carruthers J, Lei X, et al. OnabotulinumtoxinA treatment of mild glabellar lines in repose. Dermatol Surg 2010; 36 Suppl 4:2168.
140. Blitzer A, Brin MF, Keen MS, Aviv JE. Botulinum toxin for the treatment of hyperfunctional lines of the face. Arch Otolaryngol Head Neck Surg 1993; 119:1018.
141. Giordano CN, Matarasso SL, Ozog DM. Injectable and topical neurotoxins in dermatology: Basic science, anatomy, and therapeutic agents. J Am Acad Dermatol 2017; 76:1013.
142. Meunier FA, Schiavo G, Molgó J. Botulinum neurotoxins: from paralysis to recovery of functional neuromuscular transmission. J Physiol Paris 2002; 96:105.
143. www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm175013.htm (Accessed on March 28, 2011).

144. Carruthers J, Carruthers A. The evolution of botulinum neurotoxin type A for cosmetic applications. J Cosmet Laser Ther 2007; 9:186.
145. Jost WH, Blümel J, Grafe S. Botulinum neurotoxin type A free of complexing proteins (XEOMIN) in focal dystonia. Drugs 2007; 67:669.
146. Frevert J, Dressler D. Complexing proteins in botulinum toxin type A drugs: a help or a hindrance? Biologics 2010; 4:325.
147. Ramirez AL, Reeck J, Maas CS. Botulinum toxin type B (MyoBloc) in the management of hyperkinetic facial lines. Otolaryngol Head Neck Surg 2002; 126:459.
148. Alster TS, Lupton JR. Botulinum toxin type B for dynamic glabellar rhytides refractory to botulinum toxin type A. Dermatol Surg 2003; 29:516.
149. Kim EJ, Ramirez AL, Reeck JB, Maas CS. The role of botulinum toxin type B (Myobloc) in the treatment of hyperkinetic facial lines. Plast Reconstr Surg 2003; 112:88S.
150. Sadick NS. Prospective open-label study of botulinum toxin type B(Myobloc) at doses of 2,400 and 3,000 U for the treatment of glabellar wrinkles.Dermatol Surg 2003; 29:501.
151. Brandt F, O'Connell C, Cazzaniga A, Waugh JM. Efficacy and safety evaluation of a novel botulinum toxin topical gel for the treatment of moderateto severe lateral canthal lines. Dermatol Surg 2010; 36 Suppl 4:2111.
152. Collins A, Nasir A. Topical botulinum toxin. J Clin Aesthet Dermatol 2010; 3:35.
153. Chajchir I, Modi P, Chajchir A. Novel topical BoNTA (CosmeTox, toxin type A) cream used to treat hyperfunctional wrinkles of the face, mouth, and neck. Aesthetic Plast Surg 2008; 32:715.
154. https://clinicaltrials.gov/ct2/show/NCT03004248 (Accessed on April 21, 2017).
155. https://clinicaltrials.gov/ct2/show/NCT02939326 (Accessed on April 21, 2017).
156. Flynn TC. Botulinum toxin: examining duration of effect in facial aesthetic applications. Am J Clin Dermatol 2010; 11:183.
157. Murray C, Solish N. Botulinum toxin injections. In: Comprehensive dermatologic drug therapy, 2nd ed, Wolverton, SE (Eds), Elsevier Inc., 2007. p.851.
158. Carruthers JA, Lowe NJ, Menter MA, et al. A multicenter, double-blind, randomized, placebo-controlled study of the efficacy and safety of botulinum toxin type A in the treatment of glabellar lines. J Am Acad Dermatol 2002; 46:840.

159. Carruthers JD, Lowe NJ, Menter MA, et al. Double-blind, placebo-controlled study of the safety and efficacy of botulinum toxin type A for patients with glabellar lines. Plast Reconstr Surg 2003; 112:1089.
160. Lowe NJ, Ascher B, Heckmann M, et al. Double-blind, randomized, placebo-controlled, dose-response study of the safety and efficacy of botulinum toxin type A in subjects with crow's feet. Dermatol Surg 2005; 31:257.
161. Grimes PE, Shabazz D. A four-month randomized, double-blind evaluation of the efficacy of botulinum toxin type A for the treatment of glabellar lines in women with skin types V and VI. Dermatol Surg 2009; 35:429.
162. Carruthers A, Carruthers J, Said S. Dose-ranging study of botulinum toxin type A in the treatment of glabellar rhytids in females. Dermatol Surg 2005; 31:414.
163. Baumann L, Dayan S, Connolly S, et al. Duration of Clinical Efficacy of OnabotulinumtoxinA in Crow's Feet Lines: Results from Two Multicenter, Randomized, Controlled Trials. Dermatol Surg 2016; 42:598.
164. Rubin MG, Dover J, Glogau RG, et al. The efficacy and safety of a new U.S. Botulinum toxin type A in the retreatment of glabellar lines following open-label treatment. J Drugs Dermatol 2009; 8:439.
165. Brandt F, Swanson N, Baumann L, Huber B. Randomized, placebo-controlled study of a new botulinum toxin type a for treatment of glabellar lines: efficacy and safety. Dermatol Surg 2009; 35:1893.
166. Kane MA, Brandt F, Rohrich RJ, et al. Evaluation of variable-dose treatment with a new U.S. Botulinum Toxin Type A (Dysport) for correction of moderate to severe glabellar lines: results from a phase III, randomized, double-blind, placebo-controlled study. Plast Reconstr Surg 2009; 124:1619.
167. Xeomin [package insert]. Greensboro, NC: Merz Pharmaceuticals, LLC; 2011.
168. Carruthers A, Carruthers J, Flynn TC, Leong MS. Dose-finding, safety, and tolerability study of botulinum toxin type B for the treatment of hyperfunctional glabellar lines. Dermatol Surg 2007; 33:S60.
169. Sadick NS, Faacs. Botulinum toxin type B for glabellar wrinkles: a prospective open-label response study. Dermatol Surg 2002; 28:817.
170. Flynn TC, Clark RE 2nd. Botulinum toxin type B (MYOBLOC) versus botulinum toxin type A (BOTOX) frontalis study: rate of onset and radius of diffusion. Dermatol Surg 2003; 29:519.
171. Matarasso SL. Comparison of botulinum toxin types A and B: a bilateral and double-blind randomized evaluation in the treatment of canthal rhytides. Dermatol Surg 2003; 29:7.

172. Lowe PL, Patnaik R, Lowe NJ. A comparison of two botulinum type a toxin preparations for the treatment of glabellar lines: double-blind, randomized, pilot study. Dermatol Surg 2005; 31:1651.
173. Lowe NJ, Yamauchi PS, Lask GP, et al. Botulinum toxins types A and B for brow furrows: preliminary experiences with type B toxin dosing. J Cosmet Laser Ther 2002; 4:15.
174. van Laborde S, Dover JS, Moore M, et al. Reduction in injection pain with botulinum toxin type B further diluted using saline with preservative: a double-blind, randomized controlled trial. J Am Acad Dermatol 2003; 48:875.
175. Ranoux D, Gury C, Fondarai J, et al. Respective potencies of Botox and Dysport: a double blind, randomised, crossover study in cervical dystonia. J Neurol Neurosurg Psychiatry 2002; 72:459.
176. Simonetta Moreau M, Cauhepe C, Magues JP, Senard JM. A double-blind, randomized, comparative study of Dysport vs. Botox in primary palmar hyperhidrosis. Br J Dermatol 2003; 149:1041.
177. Trindade de Almeida AR, Marques E, de Almeida J, et al. Pilot study comparing the diffusion of two formulations of botulinum toxin type A in patients with forehead hyperhidrosis. Dermatol Surg 2007; 33:S37.
178. Cliff SH, Judodihardjo H, Eltringham E. Different formulations of botulinum toxin type A have different migration characteristics: a double-blind, randomized study. J Cosmet Dermatol 2008; 7:50.
179. Pickett A, Dodd S, Rzany B. Confusion about diffusion and the art of misinterpreting data when comparing different botulinum toxins used in aesthetic applications. J Cosmet Laser Ther 2008; 10:181.
180. Kane M, Donofrio L, Ascher B, et al. Expanding the use of neurotoxins in facial aesthetics: a consensus panel's assessment and recommendations. J Drugs Dermatol 2010; 9:s7.
181. Dressler D. [Pharmacological aspects of therapeutic botulinum toxin preparations]. Nervenarzt 2006; 77:912.
182. Roggenkämper P, Jost WH, Bihari K, et al. Efficacy and safety of a new Botulinum Toxin Type A free of complexing proteins in the treatment of blepharospasm. J Neural Transm (Vienna) 2006; 113:303.
183. Dressler D. Routine use of Xeomin in patients previously treated with Botox: long term results. Eur J Neurol 2009; 16 Suppl 2:2.
184. Jankovic J. Clinical efficacy and tolerability of Xeomin in the treatment of blepharospasm. Eur J Neurol 2009; 16 Suppl 2:14.
185. Dressler D. Comparing Botox and Xeomin for axillar hyperhidrosis. J Neural Transm (Vienna) 2010; 117:317.

186. Sattler G, Callander MJ, Grablowitz D, et al. Noninferiority of incobotulinumtoxinA, free from complexing proteins, compared with another botulinum toxin type A in the treatment of glabellar frown lines. Dermatol Surg 2010; 36 Suppl 4:2146.
187. Prager W, Wissmüller E, Kollhorst B, et al. Comparison of two botulinum toxin type A preparations for treating crow's feet: a split-face, double-blind, proof-of-concept study. Dermatol Surg 2010; 36 Suppl 4:2155.
188. Allergan, Inc. Botox Cosmetic (botulinum toxin type A) purified neurotoxin complex (prescribing information). Allergan, Inc, Irvine, CA 2005.
189. Feily A, Fallahi H, Zandian D, Kalantar H. A succinct review of botulinum toxin in dermatology; update of cosmetic and noncosmetic use. J Cosmet Dermatol 2011; 10:58.
190. Klein AW. Complications, adverse reactions, and insights with the use of botulinum toxin. Dermatol Surg 2003; 29:549.
191. Hsu TS, Dover JS, Arndt KA. Effect of volume and concentration on the diffusion of botulinum exotoxin A. Arch Dermatol 2004; 140:1351.
192. Liu A, Carruthers A, Cohen JL, et al. Recommendations and current practices for the reconstitution and storage of botulinum toxin type A. J Am Acad Dermatol 2012; 67:373.
193. Alam M, Dover JS, Arndt KA. Pain associated with injection of botulinum A exotoxin reconstituted using isotonic sodium chloride with and without preservative: a double-blind, randomized controlled trial. Arch Dermatol 2002; 138:510.
194. Allen SB, Goldenberg NA. Pain difference associated with injection of abobotulinumtoxinA reconstituted with preserved saline and preservative-free saline: a prospective, randomized, side-by-side, double-blind study. Dermatol Surg 2012; 38:867.
195. Hexsel DM, De Almeida AT, Rutowitsch M, et al. Multicenter, double-blind study of the efficacy of injections with botulinum toxin type A reconstituted up to six consecutive weeks before application. Dermatol Surg 2003; 29:523.
196. Hui JI, Lee WW. Efficacy of fresh versus refrigerated botulinum toxin in the treatment of lateral periorbital rhytids. Ophthal Plast Reconstr Surg 2007; 23:433.
197. Lizarralde M, Gutiérrez SH, Venegas A. Clinical efficacy of botulinum toxin type A reconstituted and refrigerated 1 week before its application in external canthus dynamic lines. Dermatol Surg 2007; 33:1328.

198. Yang GC, Chiu RJ, Gillman GS. Questioning the need to use Botox within 4 hours of reconstitution: a study of fresh vs 2-week-old Botox. Arch Facial Plast Surg 2008; 10:273.
199. Hexsel D, Brum C, do Prado DZ, et al. Field effect of two commercial preparations of botulinum toxin type A: a prospective, double-blind, randomized clinical trial. J Am Acad Dermatol 2012; 67:226.
200. Hexsel D, Dal'Forno T, Hexsel C, et al. A randomized pilot study comparing the action halos of two commercial preparations of botulinum toxin type A. Dermatol Surg 2008; 34:52.
201. Karsai S, Raulin C. Current evidence on the unit equivalence of different botulinum neurotoxin A formulations and recommendations for clinical practice in dermatology. Dermatol Surg 2009; 35:1.
202. Flynn TC. Advances in the use of botulinum neurotoxins in facial esthetics. J Cosmet Dermatol 2012; 11:42.
203. Jandhyala R. Relative potency of incobotulinumtoxinA vs onabotulinumtoxinA a meta-analysis of key evidence. J Drugs Dermatol 2012; 11:731.
204. Alam M, Geisler A, Sadhwani D, et al. Effect of Needle Size on Pain Perception in Patients Treated With Botulinum Toxin Type A Injections: A Randomized Clinical Trial. JAMA Dermatol 2015; 151:1194.
205. Giordano CN, Matarasso SL, Ozog DM. Injectable and topical neurotoxins in dermatology: Indications, adverse events, and controversies. J Am Acad Dermatol 2017; 76:1027.
206. Brin MF, Boodhoo TI, Pogoda JM, et al. Safety and tolerability of onabotulinumtoxinA in the treatment of facial lines: a meta-analysis of individual patient data from global clinical registration studies in 1678 participants. J Am Acad Dermatol 2009; 61:961.
207. Naumann M, Jankovic J. Safety of botulinum toxin type A: a systematic review and meta-analysis. Curr Med Res Opin 2004; 20:981.
208. Coté TR, Mohan AK, Polder JA, et al. Botulinum toxin type A injections: adverse events reported to the US Food and Drug Administration in therapeutic and cosmetic cases. J Am Acad Dermatol 2005; 53:407.
209. LeWitt PA, Trosch RM. Idiosyncratic adverse reactions to intramuscular botulinum toxin type A injection. Mov Disord 1997; 12:1064.
210. Li M, Goldberger BA, Hopkins C. Fatal case of BOTOX-related anaphylaxis? J Forensic Sci 2005; 50:169.

211. Nong LB, He WQ, Xu YH, et al. [Severe respiratory failure after injection of botulinum toxin: case report and review of the literature]. Zhonghua Jie He He Hu Xi Za Zhi 2008; 31:369.
212. Chertow DS, Tan ET, Maslanka SE, et al. Botulism in 4 adults following cosmetic injections with an unlicensed, highly concentrated botulinum preparation. JAMA 2006; 296:2476.
213. Yiannakopoulou E. Serious and long-term adverse events associated with the therapeutic and cosmetic use of botulinum toxin. Pharmacology 2015; 95:65.
214. Kuehn BM. FDA requires black box warnings on labeling for botulinum toxin products. JAMA 2009; 301:2316.
215. US Food and Drug Administration. Information for health care professionals: onabotulinumtoxinA (marketed as Botox/Botox Cosmetic), abobotulinumtoxinA (marketed as Dysport) and rimabotulinumtoxinB (marketed as Myobloc). http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHeathcareProfessionals/ucm174949.htm (Accessed on March 28, 2011).
216. Food and Drug Administration. Early communication about an ongoing safety review: Botox and Botox Cosmetic (Botulinum toxin Type A) and Myobloc (Botulinum toxin Type B). 2008. http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHeathcareProfessionals/ucm070366.htm (Accessed on July 02, 2010).
217. Rzany B, Dill-Müller D, Grablowitz D, et al. Repeated botulinum toxin A injections for the treatment of lines in the upper face: a retrospective study of 4,103 treatments in 945 patients. Dermatol Surg 2007; 33:S18.
218. Mejia NI, Vuong KD, Jankovic J. Long-term botulinum toxin efficacy, safety, and immunogenicity. Mov Disord 2005; 20:592.
219. Defazio G, Abbruzzese G, Girlanda P, et al. Botulinum toxin A treatment for primary hemifacial spasm: a 10-year multicenter study. Arch Neurol 2002; 59:418.
220. Cohen JL, Schlessinger J, Cox SE, et al. An analysis of the long-term safety data of repeat administrations of botulinum neurotoxin type A-ABO for the treatment of glabellar lines. Aesthet Surg J 2009; 29:S43.
221. Monheit GD, Cohen JL, Reloxin Investigational Group. Long-term safety of repeated administrations of a new formulation of botulinum toxin type A in the

treatment of glabellar lines: interim analysis from an open-label extension study. J Am Acad Dermatol 2009; 61:421.

222. Sattler G. Current and future botulinum neurotoxin type A preparations in aesthetics: a literature review. J Drugs Dermatol 2010; 9:1065.

223. Jankovic J, Vuong KD, Ahsan J. Comparison of efficacy and immunogenicity of original versus current botulinum toxin in cervical dystonia. Neurology 2003; 60:1186.

224. Lee SK. Antibody-induced failure of botulinum toxin type A therapy in a patient with masseteric hypertrophy. Dermatol Surg 2007; 33:S105.

225. Jankovic J, Schwartz K. Response and immunoresistance to botulinum toxin injections. Neurology 1995; 45:1743.

226. Dressler D. New formulation of BOTOX. Complete antibody-induced therapy failure in hemifacial spasm. J Neurol 2004; 251:360.

227. Dressler D, Wohlfahrt K, Meyer-Rogge E, et al. Antibody-induced failure of botulinum toxin a therapy in cosmetic indications. Dermatol Surg 2010; 36 Suppl 4:2182.

228. Naumann M, Carruthers A, Carruthers J, et al. Meta-analysis of neutralizing antibody conversion with onabotulinumtoxinA (BOTOX®) across multiple indications. Mov Disord 2010; 25:2211.

229. Lawrence I, Moy R. An evaluation of neutralizing antibody induction during treatment of glabellar lines with a new US formulation of botulinum neurotoxin type A. Aesthet Surg J 2009; 29:S66.

230. Greene P, Fahn S, Diamond B. Development of resistance to botulinum toxin type A in patients with torticollis. Mov Disord 1994; 9:213.

231. Carruthers J, Burgess C, Day D, et al. Consensus Recommendations for Combined Aesthetic Interventions in the Face Using Botulinum Toxin, Fillers, and Energy-Based Devices. Dermatol Surg 2016; 42:586.

232. Coleman KR, Carruthers J. Combination therapy with BOTOX and fillers: the new rejuvnation paradigm. Dermatol Ther 2006; 19:177.

233. Fagien S. Botox for the treatment of dynamic and hyperkinetic facial lines and furrows: adjunctive use in facial aesthetic surgery. Plast Reconstr Surg 1999; 103:701.

234. Fagien S, Brandt FS. Primary and adjunctive use of botulinum toxin type A (Botox) in facial aesthetic surgery: beyond the glabella. Clin Plast Surg 2001; 28:127.

235. Carruthers J, Carruthers A, Maberley D. Deep resting glabellar rhytides respond to BTX-A and Hylan B. Dermatol Surg 2003; 29:539.

236. Carruthers J, Carruthers A. A prospective, randomized, parallel group study analyzing the effect of BTX-A (Botox) and nonanimal sourced hyaluronic acid (NASHA, Restylane) in combination compared with NASHA (Restylane) alone in severe glabellar rhytides in adult female subjects: treatment of severe glabellar rhytides with a hyaluronic acid derivative compared with the derivative and BTX-A. Dermatol Surg 2003; 29:802.
237. Patel MP, Talmor M, Nolan WB. Botox and collagen for glabellar furrows: advantages of combination therapy. Ann Plast Surg 2004; 52:442.
238. Carruthers A, Carruthers J, Monheit GD, et al. Multicenter, randomized, parallel-group study of the safety and effectiveness of onabotulinumtoxinA and hyaluronic acid dermal fillers (24-mg/ml smooth, cohesive gel) alone and in combination for lower facial rejuvenation. Dermatol Surg 2010; 36 Suppl 4:2121.
239. Carruthers J, Carruthers A. Combining botulinum toxin injection and laser for facial rhytides. In: Skin Resurfacing, Coleman WP, Lawrence N (Eds), Williams and Wilkins, Baltimore, MD 1998. p.235.
240. Worcester S. Use of Botox before and after laser facial resurfacing. Skin Allergy News 2000; 31:6.
241. Zimbler MS, Holds JB, Kokoska MS, et al. Effect of botulinum toxin pretreatment on laser resurfacing results: a prospective, randomized, blinded trial. Arch Facial Plast Surg 2001; 3:165.
242. Alster TS. Laser resurfacing of rhytides. In: Manual of Cutaneous Laser Techniques, Alster TS (Ed), Lippincott-Raven Publishers, Philadelphia, PA 19997. p.104.
243. West TB, Alster TS. Effect of botulinum toxin type A on movement-associated rhytides following CO2 laser resurfacing. Dermatol Surg 1999; 25:259.
244. Yamauchi PS, Lask G, Lowe NJ. Botulinum toxin type A gives adjunctive benefit to periorbital laser resurfacing. J Cosmet Laser Ther 2004; 6:145.
245. MacGregor JL, Tanzi EL. Microfocused ultrasound for skin tightening. Semin Cutan Med Surg 2013; 32:18.
246. Gassner HG, Sherris DA, Otley CC. Treatment of facial wounds with botulinum toxin A improves cosmetic outcome in primates. Plast Reconstr Surg 2000; 105:1948.
247. Sherris DA, Gassner HG. Botulinum toxin to minimize facial scarring. Facial Plast Surg 2002; 18:35.
248. Gassner HG, Sherris DA. Chemoimmobilization: improving predictability in the treatment of facial scars. Plast Reconstr Surg 2003; 112:1464.

249. Gassner HG, Brissett AE, Otley CC, et al. Botulinum toxin to improve facial wound healing: A prospective, blinded, placebo-controlled study. Mayo Clin Proc 2006; 81:1023.
250. Wilson AM. Use of botulinum toxin type A to prevent widening of facial scars. Plast Reconstr Surg 2006; 117:1758.
251. Flynn TC. Use of intraoperative botulinum toxin in facial reconstruction. Dermatol Surg 2009; 35:182.
252. Ascher B, Hoffman K, Walker P, Lippert S, Wollina U, Havlickova B. Efficacy, patient-reported outcomes and safety profile of ATX-101 (deoxycholic acid), an injectable drug for the reduction of unwanted submental fat: results from a phase III, randomized, placebo-controlled study. J Eur Acad Derm and Venerology. 2014;28(12):1707-1715.
253. Belkyra (deoxycholic acid) [product monograph]. Markham, Ontario, Canada: Allergan Inc; August 2018.
254. McDiarmid J, Ruiz JB, Lee D, Lippert S, Hartisch C, Havlickova B. Results from a pooled analysis of two European, randomized, placebo-controlled, phase 3 studies of ATX-101 for the pharmacologic reduction of excess submental fat. Aesthetic Plast Surg. 2014;38(5):849-860. Rzany B, Griffiths T, Walker P, Lippert S, McDiarmid J, Havlickova B. Reduction of unwanted submental fatwith ATX-101 (deoxycholic acid), an adipocytolytic injectable treatment: results from a phase III, randomized, placebo-controlled study. Br J Dermatol. 2014;170(2):445-453.
255. Einstein, A. On the quantum theory of radiation. Physikal Zeitschr 1917; 18:121.
256. Patel CKN, McFarlane RA, Faust WL. Selective excitation through vibrational energy and optical maser action in N2-CO2. Phys Rev 1964; 13:617.
257. Boulnois, JL. Photophysical processes in recent medical laser developments: A review. Lasers Med Science 1986; 1:47.
258. Nelson JS, Berns MW. Basic laser physics and tissue interactions. Contemporary Dermatology 1988; 2:1.
259. Anderson RR, Parrish JA. Selective photothermolysis: precise microsurgery by selective absorption of pulsed radiation. Science 1983; 220:524.
260. Kunishige JH, Goldberg LH, Friedman PM. Laser therapy for leg veins. Clin Dermatol 2007; 25:454.
261. Wollina U, Schmidt WD, Hercogova J, Fassler D. Laser therapy of spider leg veins. J Cosmet Dermatol 2003; 2:166.

262. Domínguez A, García JA, Costela A, Gómez C. Influence of the light source and bleaching gel on the efficacy of the tooth whitening process. Photomed Laser Surg 2011; 29:53.
263. Polanyi TG. Physics of surgery with lasers. Clin Chest Med 1985; 6:179.
264. Fisher JC. The power density of a surgical laser beam: its meaning and measurement. Lasers Surg Med 1983; 2:301.
265. Goetz M, Kiesslich R, Dienes HP, et al. In vivo confocal laser endomicroscopy of the human liver: a novel method for assessing liver microarchitecture in real time. Endoscopy 2008; 40:554.
266. Kiesslich R, Burg J, Vieth M, et al. Confocal laser endoscopy for diagnosing intraepithelial neoplasias and colorectal cancer in vivo. Gastroenterology 2004; 127:706.
267. Wiesner C, Jäger W, Salzer A, et al. Confocal laser endomicroscopy for the diagnosis of urothelial bladder neoplasia: a technology of the future? BJU Int 2011; 107:399.
268. Wu K, Liu JJ, Adams W, et al. Dynamic real-time microscopy of the urinary tract using confocal laser endomicroscopy. Urology 2011; 78:225.
269. International Commission on Non-Ionizing Radiation Protection. ICNIRP statement--Protection of workers against ultraviolet radiation. Health Phys 2010; 99:66.
270. Eklöf B, Rutherford RB, Bergan JJ, et al. Revision of the CEAP classification for chronic venous disorders: consensus statement. J Vasc Surg 2004; 40:1248.
271. Langer RD, Ho E, Denenberg JO, et al. Relationships between symptoms and venous disease: the San Diego population study. Arch Intern Med 2005; 165:1420.
272. Criqui MH, Jamosmos M, Fronek A, et al. Chronic venous disease in an ethnically diverse population: the San Diego Population Study. Am J Epidemiol 2003; 158:448.
273. Labas P, Cambal M. Profuse bleeding in patients with chronic venous insufficiency. Int Angiol 2007; 26:64.
274. Hamahata A, Yamaki T, Osada A, et al. Foam sclerotherapy for spouting haemorrhage in patients with varicose veins. Eur J Vasc Endovasc Surg 2011; 41:856.
275. Forlee MV, Grouden M, Moore DJ, Shanik G. Stroke after varicose vein foam injection sclerotherapy. J Vasc Surg 2006; 43:162.
276. Gillet JL, Guedes JM, Guex JJ, et al. Side-effects and complications of foam sclerotherapy of the great and small saphenous veins: a controlled multicentre prospective study including 1,025 patients. Phlebology 2009; 24:131.

277. Hartmann, K. Reversible neurologic deficit after foam sclerotherapy. Eur J Vasc Endovasc Surg 2009; Epub ahead of print.
278. Raymond-Martimbeau P. Transient adverse events positively associated with patent foramen ovale after ultrasound-guided foam sclerotherapy. Phlebology 2009; 24:114.
279. Ceulen RP, Sommer A, Vernooy K. Microembolism during foam sclerotherapy of varicose veins. N Engl J Med 2008; 358:1525.
280. Hanisch F, Müller T, Krivokuca M, Winterholler M. Stroke following variceal sclerotherapy. Eur J Med Res 2004; 9:282.
281. Goldman MP. Treatment of varicose and telangiectatic leg veins: double-blind prospective comparative trial between aethoxyskerol and sotradecol. Dermatol Surg 2002; 28:52.
282. Parsi K, Exner T, Connor DE, et al. In vitro effects of detergent sclerosants on coagulation, platelets and microparticles. Eur J Vasc Endovasc Surg 2007; 34:731.
283. Tisi PV, Beverley C, Rees A. Injection sclerotherapy for varicose veins. Cochrane Database Syst Rev 2006; :CD001732.
284. Schwartz L, Maxwell H. Sclerotherapy for lower limb telangiectasias. Cochrane Database Syst Rev 2011; :CD008826.
285. Leach BC, Goldman MP. Comparative trial between sodium tetradecyl sulfate and glycerin in the treatment of telangiectatic leg veins. Dermatol Surg 2003; 29:612.
286. Galland RB, Magee TR, Lewis MH. A survey of current attitudes of British and Irish vascular surgeons to venous sclerotherapy. Eur J Vasc Endovasc Surg 1998; 16:43.
287. Breu FX, Guggenbichler S. European Consensus Meeting on Foam Sclerotherapy, April, 4-6, 2003, Tegernsee, Germany. Dermatol Surg 2004; 30:709.
288. Tessari L, Cavezzi A, Frullini A. Preliminary experience with a new sclerosing foam in the treatment of varicose veins. Dermatol Surg 2001; 27:58.
289. Eckmann DM. Polidocanol for endovenous microfoam sclerosant therapy. Expert Opin Investig Drugs 2009; 18:1919.
290. Todd KL 3rd, Wright DI, VANISH-2 Investigator Group. The VANISH-2 study: a randomized, blinded, multicenter study to evaluate the efficacy and safety of polidocanol endovenous microfoam 0.5% and 1.0% compared with placebo for the treatment of saphenofemoral junction incompetence. Phlebology 2014; 29:608.

291. http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm435082.htm (Accessed on March 19, 2015).
292. Almeida JI, Javier JJ, Mackay E, et al. First human use of cyanoacrylate adhesive for treatment of saphenous vein incompetence. J Vasc Surg Venous Lymphat Disord 2013; 1:174.
293. Morrison N, Gibson K, McEnroe S, et al. Randomized trial comparing cyanoacrylate embolization and radiofrequency ablation for incompetent great saphenous veins (VeClose). J Vasc Surg 2015; 61:985.
294. Guex JJ. Endovenous chemical (and physical) treatments for varices: what's new? Phlebology 2014; 29:45.
295. Lawson J, Gauw S, van Vlijmen C, et al. Sapheon: the solution? Phlebology 2013; 28 Suppl 1:2.
296. Toonder IM, Lam YL, Lawson J, Wittens CH. Cyanoacrylate adhesive perforator embolization (CAPE) of incompetent perforating veins of the leg, a feasibility study. Phlebology 2014; 29:49.
297. Ceulen RP, Jagtman EA, Sommer A, et al. Blocking the saphenofemoral junction during ultrasound-guided foam sclerotherapy-- assessment of a presumed safety-measure procedure. Eur J Vasc Endovasc Surg 2010; 40:772.
298. FEGAN WG. Continuous compression technique of injecting varicose veins. Lancet 1963; 2:109.
299. Labas P, Ohradka B, Cambal M, et al. Long term results of compression sclerotherapy. Bratisl Lek Listy 2003; 104:78.
300. Kiguchi MM, Hager ES, Winger DG, et al. Factors that influence perforator thrombosis and predict healing with perforator sclerotherapy for venous ulceration without axial reflux. J Vasc Surg 2014; 59:1368.
301. Munavalli GS, Weiss RA. Complications of sclerotherapy. Semin Cutan Med Surg 2007; 26:22.
302. Weiss RA, Weiss MA. Incidence of side effects in the treatment of telangiectasias by compression sclerotherapy: hypertonic saline vs. polidocanol. J Dermatol Surg Oncol 1990; 16:800.
303. Bukhari RH, Lohr JM, Paget DS, et al. Evaluation of lidocaine as an analgesic when added to hypertonic saline for sclerotherapy. J Vasc Surg 1999; 29:479.
304. Scultetus AH, Villavicencio JL, Kao TC, et al. Microthrombectomy reduces postsclerotherapy pigmentation: multicenter randomized trial. J Vasc Surg 2003; 38:896.
305. Davis LT, Duffy DM. Determination of incidence and risk factors for postsclerotherapy telangiectatic matting of the lower extremity: a retrospective analysis. J Dermatol Surg Oncol 1990; 16:327.

306. Bernstein EF. Clinical characteristics of 500 consecutive patients presenting for laser removal of lower extremity spider veins. Dermatol Surg 2001; 27:31.
307. Goldman MP, Kaplan RP, Duffy DM. Postsclerotherapy hyperpigmentation:a histologic evaluation. J Dermatol Surg Oncol 1987; 13:547.
308. Norris MJ, Carlin MC, Ratz JL. Treatment of essential telangiectasia: effects of increasing concentrations of polidocanol. J Am Acad Dermatol 1989; 20:643.
309. Glaich AS, Goldberg LH, Dai T, Friedman PM. Fractional photothermolysis for the treatment of telangiectatic matting: a case report. J Cosmet Laser Ther 2007; 9:101.
310. Masuda EM, Kessler DM, Lurie F, et al. The effect of ultrasound-guided sclerotherapy of incompetent perforator veins on venous clinical severity and disability scores. J Vasc Surg 2006; 43:551.
311. Böhler-Sommeregger K, Karnel F, Schuller-Petrovic S, Santler R. Do telangiectases communicate with the deep venous system? J Dermatol Surg Oncol 1992; 18:403.
312. Jia X, Mowatt G, Burr JM, et al. Systematic review of foam sclerotherapy for varicose veins. Br J Surg 2007; 94:925.
313. Guex JJ, Allaert FA, Gillet JL, Chleir F. Immediate and midterm complications of sclerotherapy: report of a prospective multicenter registry of 12,173 sclerotherapy sessions. Dermatol Surg 2005; 31:123.
314. Gillet JL, Lausecker M, Sica M, et al. Is the treatment of the small saphenous veins with foam sclerotherapy at risk of deep vein thrombosis? Phlebology 2014; 29:600.
315. Darvall KA, Bate GR, Silverman SH, et al. Medium-term results of ultrasound-guided foam sclerotherapy for small saphenous varicose veins. Br J Surg 2009; 96:1268.
316. Willenberg T, Smith PC, Shepherd A, Davies AH. Visual disturbance following sclerotherapy for varicose veins, reticular veins and telangiectasias: a systematic literature review. Phlebology 2013; 28:123.
317. Sarvananthan T, Shepherd AC, Willenberg T, Davies AH. Neurological complications of sclerotherapy for varicose veins. J Vasc Surg 2012; 55:243.
318. Hill DA. Neurological and chest symptoms following sclerotherapy: a single centre experience. Phlebology 2014; 29:619.
319. Hansen, K, et al. Transthoracic echocardiogram and transcranial doppler detection of emboli after foam sclerotherapy of leg veins. J Vasc Ultrasound 2007; 31:213.

320. Frullini A, Felice F, Burchielli S, Di Stefano R. High production of endothelin after foam sclerotherapy: a new pathogenetic hypothesis for neurological and visual disturbances after sclerotherapy. Phlebology 2011; 26:203.
321. Frullini A, Barsotti MC, Santoni T, et al. Significant endothelin release in patients treated with foam sclerotherapy. Dermatol Surg 2012; 38:741.
322. O'Hare JL, Stephens J, Parkin D, Earnshaw JJ. Randomized clinical trial of different bandage regimens after foam sclerotherapy for varicose veins. Br J Surg 2010; 97:650.
323. Hamel-Desnos CM, Guias BJ, Desnos PR, Mesgard A. Foam sclerotherapy of the saphenous veins: randomised controlled trial with or without compression. Eur J Vasc Endovasc Surg 2010; 39:500.
324. Kern P, Ramelet AA, Wütschert R, Hayoz D. Compression after sclerotherapy for telangiectasias and reticular leg veins: a randomized controlled study. J Vasc Surg 2007; 45:1212.
325. Weiss RA, Sadick NS, Goldman MP, Weiss MA. Post-sclerotherapy compression: controlled comparative study of duration of compression and its effects on clinical outcome. Dermatol Surg 1999; 25:105.
326. Nootheti PK, Cadag KM, Magpantay A, Goldman MP. Efficacy of graduated compression stockings for an additional 3 weeks after sclerotherapy treatment of reticular and telangiectatic leg veins. Dermatol Surg 2009; 35:53.
327. Lupton JR, Alster TS, Romero P. Clinical comparison of sclerotherapy versus long-pulsed Nd:YAG laser treatment for lower extremity telangiectases. Dermatol Surg 2002; 28:694.
328. Coles CM, Werner RS, Zelickson BD. Comparative pilot study evaluating the treatment of leg veins with a long pulse ND:YAG laser and sclerotherapy. Lasers Surg Med 2002; 30:154.
329. Tenbrook JA Jr, Iafrati MD, O'donnell TF Jr, et al. Systematic review of outcomes after surgical management of venous disease incorporating subfascial endoscopic perforator surgery. J Vasc Surg 2004; 39:583.
330. Thomasset SC, Butt Z, Liptrot S, et al. Ultrasound guided foam sclerotherapy: factors associated with outcomes and complications. Eur J Vasc Endovasc Surg 2010; 40:389.
331. Nael R, Rathbun S. Effectiveness of foam sclerotherapy for the treatment of varicose veins. Vasc Med 2010; 15:27.
332. Hamahata A, Yamaki T, Sakurai H. Outcomes of ultrasound-guided foam sclerotherapy for varicose veins of the lower extremities: a single center experience. Dermatol Surg 2011; 37:804.

333. Levy JL, Berwald C. Treatment of vascular abnormalities with a long-pulse diode at 980 nm. J Cosmet Laser Ther 2004; 6:217.
334. Gonzalez-Zeh R, Armisen R, Barahona S. Endovenous laser and echo-guided foam ablation in great saphenous vein reflux: one-year follow-up results. J Vasc Surg 2008; 48:940.
335. Weiss RA, Munavalli G. Endovenous ablation of truncal veins. Semin Cutan Med Surg 2005; 24:193.
336. Goldman MP. Intravascular lasers in the treatment of varicose veins. J Cosmet Dermatol 2004; 3:162.
337. Shadid N, Nelemans P, Lawson J, Sommer A. Predictors of recurrence of great saphenous vein reflux following treatment with ultrasound-guided foamsclerotherapy. Phlebology 2015; 30:194.
338. Chen CH, Chiu CS, Yang CH. Ultrasound-guided foam sclerotherapy for treating incompetent great saphenous veins--results of 5 years of analysis and morphologic evolvement study. Dermatol Surg 2012; 38:851.
339. Barrett JM, Allen B, Ockelford A, Goldman MP. Microfoam ultrasound-guided sclerotherapy of varicose veins in 100 legs. Dermatol Surg 2004; 30:6.
340. Darvall KA, Bate GR, Adam DJ, et al. Duplex ultrasound outcomes following ultrasound-guided foam sclerotherapy of symptomatic primary great saphenous varicose veins. Eur J Vasc Endovasc Surg 2010; 40:534.
341. Boersma D, van Eekeren RR, Werson DA, et al. Mechanochemical endovenous ablation of small saphenous vein insufficiency using the ClariVein(®) device: one-year results of a prospective series. Eur J Vasc Endovasc Surg 2013; 45:299.
342. Weiss RA, Weiss MA. Resolution of pain associated with varicose and telangiectatic leg veins after compression sclerotherapy. J Dermatol Surg Oncol 1990; 16:333.
343. Bradbury AW, Bate G, Pang K, et al. Ultrasound-guided foam sclerotherapy is a safe and clinically effective treatment for superficial venous reflux. J Vasc Surg 2010; 52:939.
344. Neglén P, Einarsson E, Eklöf B. The functional long-term value of different types of treatment for saphenous vein incompetence. J Cardiovasc Surg (Torino) 1993; 34:295.
345. Belcaro G, Nicolaides AN, Ricci A, et al. Endovascular sclerotherapy, surgery, and surgery plus sclerotherapy in superficial venous incompetence: a randomized, 10-year follow-up trial--final results. Angiology 2000; 51:529.

346. Belcaro G, Cesarone MR, Di Renzo A, et al. Foam-sclerotherapy, surgery, sclerotherapy, and combined treatment for varicose veins: a 10-year, prospective, randomized, controlled, trial (VEDICO trial). Angiology 2003; 54:307.
347. Rigby KA, Palfreyman SJ, Beverley C, Michaels JA. Surgery versus sclerotherapy for the treatment of varicose veins. Cochrane Database Syst Rev 2004; :CD004980.
348. Chapman-Smith P, Browne A. Prospective five-year study of ultrasound-guided foam sclerotherapy in the treatment of great saphenous vein reflux. Phlebology 2009; 24:183.
349. Hamel-Desnos C, Desnos P, Wollmann JC, et al. Evaluation of the efficacy of polidocanol in the form of foam compared with liquid form in sclerotherapy of the greater saphenous vein: initial results. Dermatol Surg 2003; 29:1170.
350. O'Donnell TF Jr. The present status of surgery of the superficial venous system in the management of venous ulcer and the evidence for the role of perforator interruption. J Vasc Surg 2008; 48:1044.
351. Stuart WP, Adam DJ, Allan PL, et al. Saphenous surgery does not correct perforator incompetence in the presence of deep venous reflux. J Vasc Surg 1998; 28:834.
352. Kianifard B, Holdstock J, Allen C, et al. Randomized clinical trial of the effect of adding subfascial endoscopic perforator surgery to standard great saphenous vein stripping. Br J Surg 2007; 94:1075.
353. Pang KH, Bate GR, Darvall KA, et al. Healing and recurrence rates following ultrasound-guided foam sclerotherapy of superficial venous reflux in patients with chronic venous ulceration. Eur J Vasc Endovasc Surg 2010; 40:790.
354. Darvall KA, Bate GR, Adam DJ, et al. Ultrasound-guided foam sclerotherapy for the treatment of chronic venous ulceration: a preliminary study. Eur J Vasc Endovasc Surg 2009; 38:764.
355. O'Hare JL, Earnshaw JJ. Randomised clinical trial of foam sclerotherapy for patients with a venous leg ulcer. Eur J Vasc Endovasc Surg 2010; 39:495.
356. Whiting DA. The structure of human hair follicle, Canfield Publishing, Fairfield, NJ 2004.
357. Paus R, Cotsarelis G. The biology of hair follicles. N Engl J Med 1999; 341:491.
358. Childs JM, Sperling LC. Histopathology of scarring and nonscarring hair loss. Dermatol Clin 2013; 31:43.
359. Alajlan A, Shapiro J, Rivers JK, et al. Paradoxical hypertrichosis after laser epilation. J Am Acad Dermatol 2005; 53:85.

360. Kontoes P, Vlachos S, Konstantinos M, et al. Hair induction after laser-assisted hair removal and its treatment. J Am Acad Dermatol 2006; 54:64.
361. Wheeland RG. Permanent hair reduction with a home-use diode laser: Safety and effectiveness 1 year after eight treatments. Lasers Surg Med 2012; 44:550.
362. Hession MT, Markova A, Graber EM. A review of hand-held, home-use cosmetic laser and light devices. Dermatol Surg 2015; 41:307.
363. Leavitt M, Perez-Meza D, Rao NA, et al. Effects of finasteride (1 mg) on hair transplant. Dermatol Surg 2005; 31:1268.
364. Hall KD, Guo J. Obesity Energetics: Body Weight Regulation and the Effects of Diet Composition. Gastroenterology 2017; 152:1718.
365. Wing RR, Phelan S. Long-term weight loss maintenance. Am J Clin Nutr 2005; 82:222S.
366. Sumithran P, Prendergast LA, Delbridge E, et al. Long-term persistence of hormonal adaptations to weight loss. N Engl J Med 2011; 365:1597.
367. Larsen TM, Dalskov SM, van Baak M, et al. Diets with high or low protein content and glycemic index for weight-loss maintenance. N Engl J Med 2010; 363:2102.
368. Claessens M, van Baak MA, Monsheimer S, Saris WH. The effect of a low-fat, high-protein or high-carbohydrate ad libitum diet on weight loss maintenance and metabolic risk factors. Int J Obes (Lond) 2009; 33:296.
369. Jouber tHued R. Odontología adhesiva y estética [Internet]. Madrid: Editorial Médica;2009.
370. González Iglesias J. Historia de la Odonto-estomatología española. Madrid: Ediciones. Avances Médico-Dentales; 1994.
371. Barrancos Mooney J, Barrancos Patricio J. Operatoria dental: integración clínica. España: ELSEVIER: 2006.
372. Hobkirk JA. Advances in prosthetic dentistry. Prim Dent Care. 2002 Jul;9(3):81-5.
373. Mac Entee MI, Glick N, Stolar E. Age, gender, dentures and oral mucosal disorders. Oral Dis. 1998;4(1):22-6.
374. 1. Miller L. Organizing color in Dentistry. J Am Dent Assoc 1987;115: 26E-40E 2.
375. Chu J, Devigus A, Mieleszko A. The physics of color en Fundamentals of color: Shade Matching and comunication in esthetic dentistry. Ed Quintessence Chicago; 2004. p. 3-1.