

Table of Contents

INTRODUCTION	XIII
Beauty Is Health	XIII
The Dentist’s Role in Beauty	XV
Managing Patient Expectations	XVI
REFERENCES	XVII
1 VARYING CULTURAL IDEALS OF BEAUTY	1
– Phase 1	8
– Phase 2	8
– Phase 3	8
– Phase 4	9
Ethnic Considerations	10
REFERENCES	11
2 THE AESTHETIC TOOLBOX	13
Botulinum Neurotoxin (BoNT-A)	13
History of Botox	14
Off-Label Use of BoNT-A	15
Mechanism of Action of BoNT-A	15
Wrinkle Types	17
Dermal Fillers	18
Types of Dermal Fillers	18
– Autologous Fillers	18
– Hyaluronic Acid Fillers	19
– Calcium Hydroxylapatite Fillers	19
– Polyalkylimide Fillers	19
– Polylactic Acid Fillers	20
– Polymethyl Methacrylate Microspheres (PMMA) Fillers	20

– Collagen Fillers	20
Combining Botox With Fillers	20
REFERENCES	21
3 THE AESTHETIC CONSULTATION	23
TEOPLAN™	25
The Ideal Face Shape – Oval or Heart	29
The Non-Ideal Face Shape	29
– Long face shape	29
– Round face shape	30
– Square face shape	30
– Diamond face shape	30
Consultation Process	30
REFERENCES	34
4 FUNDAMENTALS OF BOTULINUM NEUROTOXIN PROCEDURES	35
Patient Record Keeping	36
Contraindications to BoNT-A Injections	39
– Absolute Contraindications	39
– Relative Contraindications	39
– Risk of Immunity	40
Injections of BoNT-A	41
– Patient Assessment	44
– Topical Anesthetics	44
– Needles and Syringes	44
– Dilution of Product	45
Injection Technique	47
REFERENCES	50
5 BoNT-A PROCEDURES IN THE UPPER FACE	51
Glabella Rhytids (Frown Lines)	51
– Lateral Corrugator Supercilii Muscles	54
– Procerus Muscles	54
– Depressor Supercilii Muscles	54
– Glabella Safety Zone	59
– Glabella Area Dosage	59
– Adverse Treatment Results	59
Frontalis Rhytids (Horizontal Forehead Lines)	63



- Frontalis Safety Zone 66
- Determining Frontalis Dosage 66
- Adverse Treatment Results 68
- Orbicularis Oculi Rhytids 70
 - Lateral Canthal Rhytids (Crow’s Feet) 70
 - Adverse Treatment Results 77
- Infraocular Rhytids (Under-Eye Wrinkles)..... 79
 - Safety Zone for Lower Orbicularis Oculi Injections 79
 - Adverse Treatment Results 81
- Upper Orbicularis Oculi – Reduction Of Ptotic Eyebrows (Eyebrow Lift) 84
 - Adverse Treatment Results 84
- Transverse Nasalis Rhytids (Bunny Lines) 87
 - Adverse Treatment Results 91
- REFERENCES** 92

6

BoNT-A PROCEDURES IN THE MID AND LOWER FACE .. 95

- Gummy Smile 95
 - BoNT-A Injections for Gummy Smile..... 97
 - BoNT-A Dosage for Gummy Smile Treatment 100
 - Adverse Treatment Results 100
- Orbicularis Oris Rhytids (Smoker’s Lines) 100
 - BoNT-A Injections in the Orbicularis Oris..... 102
 - Adverse Treatment Results 106
- Depressor Anguli Oris Rhytids (Marionette Lines, Melomental Folds, Oral Commissure Wrinkles)..... 106
 - DAO Safety Zone..... 109
 - Adverse Treatment Results 109
- Mentalis Rhytids (Chin Puckering, Peau d’Orange)..... 112
 - Injections in the Mentalis 112
 - Adverse Treatment Results 115
- Platysma Rhytids (Nefertiti Lift, Horizontal Neck Bands, Turkey Neck) . 115
 - Adverse Treatment Results 118
- Depressor Septi Nasi Muscle 120
 - Adverse Treatment Results 122
- REFERENCES** 122

7

TREATMENT TECHNIQUES & ANATOMICAL CONSIDERATIONS..... 125

- Glossary of Key Terms 125
- Applied Injectable Anatomy..... 127
 - 1. Facial diagnosis..... 127

– 2. Treatment Sequencing.....	128
– 3. Product and Technique Considerations	128
Injectable Anatomy	130
Forehead.....	130
– Bone.....	130
– Muscle.....	133
– Skin and Superficial Fat.....	135
Temple	135
– Bone.....	135
– Muscle and Temporalis Fascia	135
– Loose Areolar Tissue	135
– Temporo-Parietal Fascia	135
– Skin and Superficial Fat.....	135
Tear Trough/Infraorbital Area	140
– Bone.....	143
– Retaining Ligament and Muscle	144
– Skin	145
Midface	148
– Bone.....	148
– Retaining Ligaments	151
– Deep Fat	151
– Muscle.....	158
– Superficial Musculoaponeurotic System (SMAS).....	158
– Superficial Fat	161
– Skin	165
Lower Face	165
<i>Anatomical Considerations - Lips</i>	165
– Teeth and Mucosa.....	165
– Orbicularis Oris Muscle.....	165
– Skin and Subcutaneous Fat	166
<i>Anatomical Considerations - Chin</i>	169
– Bone and Dentition	169
– Deep Fat	173
– Muscles	173
– Superficial Fat and Skin.....	173
<i>Anatomical Considerations - Jawline</i>	174
– Bone.....	174
– Muscle.....	174
– Superficial Fat, Septi, and Retaining Ligaments	176
– Skin	176
REFERENCES	183



8	TREATMENT STRATEGIES AND OUTCOMES	187
	Treatment Strategies	187
	Treatment Outcomes	193
	REFERENCES	202
9	THERAPEUTIC USE OF BoNT-A IN DENTISTRY	203
	BoNT-A Therapeutics	203
	– BoNT-A Treatment for Facial Pain.....	203
	– Orofacial Pain	203
	– Classifications of Pain.....	204
	– Temporomandibular Joint Dysfunction	209
	– Oral Parafunction	210
	– Myofascial Pain Syndrome	211
	– Treating Myofascial Pain in the Muscles of Mastication with BoNT-A ..	215
	Masseter Muscle	219
	– Masseter Injections.....	223
	– Masseter Muscle Safety Zone	223
	– Adverse Treatment Results	227
	– Treating Masseter Hypertrophy	229
	Temporalis Muscle	229
	– Temporalis Injections	235
	– Temporalis Safety Zone.....	237
	– Adverse Treatment Results	237
	The Pterygoid Muscles.....	237
	<i>Medial Pterygoid Muscle</i>	237
	– Medial Pterygoid Injections	238
	– Adverse Treatment Results	240
	<i>Lateral Pterygoid Muscle</i>	240
	– Lateral Pterygoid Injections	243
	– Adverse Treatment Results	244
	Headache Disorders.....	244
	– Tension-Type Headaches and Migraine	244
	– Chronic Migraine Protocol with BoNT-A	245
	– Frontal-Temple Headaches	245
	– Cervicogenic Headaches	245
	Other Orofacial Therapeutic Uses of BoNT-A.....	250
	– Mentalis Muscle	250
	– Chronic Angular Chelitis	251
	– Sialorrhea	251
	– Trigeminal Neuralgia	253
	REFERENCES	254
	APPENDIX	259

