

CONTENTS

1. Hemangiomas and Vascular Malformations— A Management Oriented Classification 1

KS Goleria

The First Biological Classification (1863) 1

Mulliken and Glowacki's Biological Classification (1982) 2

The Hamburg Classification (1988-1989) 3

The Ian Jackson Classification (1993) 3

The Orbital Society's Classification 3

The Biological Behavior of the Various Channels 4

Why a Management Oriented Classification? 6

2. Imaging for the Management of Hemangiomas and Vascular Malformations..... 9

Shrinivas Desai

Role of Radiological Investigations 9

Initial Work-up 10

Hemangiomas (Capillary Hemangiomas of Infancy) 11

Vascular Malformations 13

AVMs 18



3. Capillary Hemangioma of Infancy (CHI) A Small Channel Fast Flow Lesion 25

KS Goleria

Nomenclature 25

Incidence and Distribution 25

The Biological Progression 25



A Case Study 27

Diagnosis 31

Variants 31

Management 33

4. Small Channel Low Flow Vascular Malformations

Capillary, Lymphatic, Venule Combinations (CLVCS) 39

KS Goleria

The Mix-up of Channels 39

Biological Behavior 39

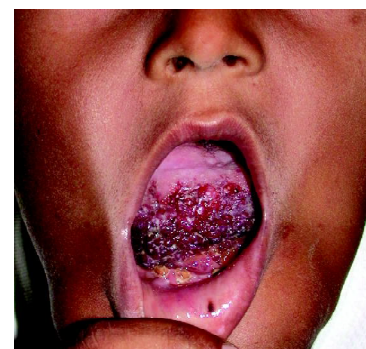
Capillary Malformations (CMs) 40

Lymphatic Malformations (LMs) 45

Case Study 1: Capillary-Lymphatic-Venous-Malformation (CLVM) 47

Case Study 2: Bilateral Macrocystic and Central Microcystic Lymphatic Malformation 53

Case Study 3: Lymphatic Malformations with Iatrogenic Problems 62



5. Hemangiomas and Vascular Malformations of the Orbit 73

Nirmala Subramanian

Capillary Hemangiomas of Infancy 74

The Superficial CHI 74

The Deep CHI 74

Combined Superficial and Deep CHI 76

Complex Capillary Hemangiomas 78

Imaging Capillary Hemangiomas 78

Histopathology 83



Syndromic Hemangiomas 89

Malignant Vascular Neoplasms 90

Small Channel No Flow Vascular Malformations 92

Lymphangioma Imaging 96

Capillary Malformations 108

Venous Malformations of the Orbit 108

Orbital Hematoma 113

Cavernous Venous Malformations (Cavernous Hemangiomas) 117

Investigations 118

Management 119

6. Lasers in Hemangiomas and Vascular Malformations..... 129

Shirang G Pandit

Advantages of Lasers 129

About Lasers 129

Laser Physics 130

Laser Terminology 131

Clinical Applications of Lasers in Vascular Malformations 134



7. Venous Malformations (VMs)

A Large Channel Low Flow Lesions..... 147

KS Goleria

Manifestation 147

Biological Behavior—Features and Growth 147

Diagnostic Errors and Inadequate Exposures can be Disasterous 148



Some Other Features Related to VMs 151

Management 153

Therapeutic Measures 153

8. Vascular Malformations of the Brain 161

Anil Karapurkar

*Pial Arteriovenous Malformations (AVM) and Arteriovenous
Fistula (AVF)* 161

Dural Arteriovenous Malformations (DAVMs) 169

Developmental Venous Anomalies (DVAs) 177

Cavernoma 179

Capillary Telangiectasia 180

Cerebrofacial Arteriovenous Metameric Syndrome (CAMS) 180



9. Arterial and Arteriovenous Malformations (AVMs)

Characterized by Large Channel High Flow Vascular Malformations 189

KS Goleria

Manifestation 189

Biological Behavior 189

Management 191

Case Study 199



10. The Steal Phenomenon and its Management 205

KS Goleria

Steal and Nidus 205

A Case Study of an Arteriovenous Malformation 206

Past Surgical History 206



Management 207

The Reconstruction 210

Appendix:

Existing Nomenclature of Hemangiomas and Vascular Malformations **215**

Index 219