

TABLE OF CONTENTS

Atlas for the Diagnosis of Tumors in the Dog and Cat

Preface xi

Acknowledgments xiii

Part I Overview of the Diagnostic Process 1

1 Overview of Grading and Staging 3

Identification of the process 3

Identification of tumor types 5

Grading 5

Staging 7

Staging versus clinical behavior 9

Epithelial tumors 12

Mesenchymal tumors 26

Round cell tumors 32

Melanoma 42

Conclusion 44

References 45

Part II Case Studies 49

2 Selected Lesions of the Head and Neck 51

Bone tumors of the head 51

Osteoma 51

Osteosarcoma 51

Mass lesions of the ear canal 54

Aural polyp 54

Ceruminous adenoma 55

Ceruminous carcinoma 56

Mass lesions of the external ear pinna 57

Histiocytoma 57

Squamous cell carcinoma 58

Mass lesions of the conjunctiva and nictitans 59

Papilloma 59

Squamous cell carcinoma 60

Hemangiosarcoma 62

Melanoma 63

Eyelid masses 64

Meibomian gland adenoma 64

Spindle cell tumor 65

Lesions of the oral and nasal mucosal epithelium 66

Eosinophilic inflammation 67

Lymphoplasmacellular inflammation 68

Lymphosarcoma 69

Epulis 70

Acanthomatous epulis 70

Ossifying epulis 71

Viral papilloma 72

Squamous cell carcinoma 73

Melanoma 74

Nasal cavity tumors 76

Adenocarcinoma 76

Chondrosarcoma 77

Mass lesions of the canine and feline muzzle skin 78

Sebaceous gland nodular hyperplasia 78

Sebaceous gland adenoma 79

Sebaceous epithelioma 79

Trichoblastoma (Basal cell tumor) 80

Mast cell tumor 82

Plasma cell tumor 83

Mass lesions of the submandibular region 84

Reactive lymph node 85

Malignant lymphoma 86

Normal salivary gland 87

Salivary mucocele 87

Salivary gland carcinoma 88

Ventral neck masses 89

Thyroid adenoma 90

Thyroid carcinoma 91

Parathyroid adenoma 91

Additional reading 92

3 Selected Lesions of the Limbs Paws and Digits 97

Bone lesions 97

Periosteal hyperplasia 97

Osteosarcoma 97

Subungual tumors 100

Melanoma 100

Squamous cell carcinoma 102

Digital skin and nail bed lesions 103

Calcinosis circumscripta 103

Plasmacellular pododermatitis 104

Papilloma 104

Fibroadnexal hyperplasia 107

Stromal tumors of the limb 108

Canine low-grade spindle cell tumor 108

Feline spindle cell tumor 110

Lipoma 111

Liposarcoma 113

Synovial sarcoma 114

Additional reading 115

4 Selected Genital and Perineal Masses 119

Perineal masses 119

Rectal polyp 119

Perianal gland adenoma 119

Perianal gland carcinoma 121

Anal sac apocrine gland carcinoma 122

Masses of the external genitalia 124

Transmissible venereal tumor 124

Mast cell tumor 126

Additional reading 126

5 Selected Lesions of the Skin and Subcutis of the Trunk 129

Mass lesions of the dorsal trunk 129

Calcinosis cutis 129

Follicular cyst 129

Cystic adnexal tumors—trichoepithelioma keratoacanthoma 132

Apocrine adenoma 133

Apocrine and sebaceous carcinoma 133

Sebaceous carcinoma 134

Lipoma 136

Canine well-differentiated spindle cell proliferation 137

Canine spindle cell tumor mid grade 138

Canine spindle cell tumor high grade 139

Feline spindle cell tumor 140

Canine cutaneous lymphoma 144

Mast cell tumor 145

Canine histiocytoma 147

Histiocytosis 148

Dorsal tail head masses 149

Pilomatricoma 149

Melanoma 149

Sebaceous adenoma 151

Perianal gland adenoma 153

Ventral trunk vascular lesions of the skin and subcutis 153

Hemangioma 153

Hemangiosarcoma 154

Mass lesions of the mammary gland 156

Fibroepithelial hyperplasia 156

Mammary gland adenoma 157

Complex adenoma 158

Mixed mammary tumor 159

Mammary carcinoma 160

Additional reading 163

6 Selected Lesions of the Thoracic Viscera 167

Cardiac tumors 167

Hemangiosarcoma 167

Malignant plasma cell tumor 167

Pulmonary mass lesions 170

Pulmonary carcinoma 170

Pulmonary hemangiosarcoma 172

Pulmonary adenomatosis 172

Mediastinal tumors 175

Mediastinal malignant lymphoma 175

Thymoma 177

Additional reading 178

7 Selected Lesions of the Abdominal Viscera 181

Diseases that result in liver enlargement 181

Vacuolar hepatopathy 181

Bile duct hyperplasia 181

Hepatocellular neoplasia 183

Bile duct carcinoma 185

Hepatic hemangiosarcoma 186

Gastrointestinal lesions 187

Eosinophilic inflammatory bowel disease 187

Lymphoplasmacellular inflammatory bowel disease 187

Gastrointestinal malignant lymphoma 187

Gastrointestinal adenocarcinoma 190

Gastrointestinal spindle cell tumor 190

Kidney and bladder masses 190

Pyogranulomatous inflammatory disease suggestive of feline infectious peritonitis 191

Renal carcinoma 192

Renal malignant lymphoma 193

Urinary bladder cystitis with reactive epithelial hyperplasia 194

Urinary bladder polyp 195

Transitional cell carcinoma 196

Splenomegaly and splenic masses 198

Extramedullary hematopoiesis 198

Lymphoid nodular hyperplasia 198

Malignant lymphoma 198

Mast cell tumor 198

Splenic torsion 202

Splenic hematoma 203

Splenic hemangiosarcoma 204

Splenic histiocytic sarcoma 206

Splenic malignant fibrous histiocytoma 207

Additional reading 209

8 Sample Handling 213

Cytologic specimens 213

Biopsy specimens 219

Histology processing glass slide production and routine staining 224

Additional reading 227

Index 229.