

Contents

1 Tumours of the nasal cavity, paranasal sinuses and skull base	11	Introduction	65
WHO and TNM classifications	12	Nasopharyngeal carcinoma	65
Introduction	14	Nasopharyngeal papillary adenocarcinoma	70
Carcinomas	14	Salivary gland tumours	71
Keratinizing squamous cell carcinoma	14	Adenoid cystic carcinoma	71
Non-keratinizing squamous cell carcinoma	15	Salivary gland anlage tumour	71
Spindle cell (sarcomatoid) squamous cell carcinoma	17	Benign and borderline lesions	72
Lymphoepithelial carcinoma	18	Hairy polyp	72
Sinonasal undifferentiated carcinoma	18	Ectopic pituitary adenoma	72
NUT carcinoma	20	Craniopharyngioma	73
Neuroendocrine carcinoma	21	Soft tissue tumours	74
Adenocarcinoma	23	Nasopharyngeal angiofibroma	74
Intestinal-type adenocarcinoma	23	Haematolymphoid tumours	75
Non-intestinal-type adenocarcinoma	24	Notochordal tumours	76
Teratocarcinosarcoma	26	Chordoma	76
Sinonasal papillomas	28	3 Tumours of the hypopharynx, larynx, trachea and parapharyngeal space	77
Sinonasal papilloma, inverted type	28	WHO and TNM classifications	78
Sinonasal papilloma, oncocytic type	29	Introduction	81
Sinonasal papilloma, exophytic type	30	Malignant surface epithelial tumours	81
Respiratory epithelial lesions	31	Conventional squamous cell carcinoma	81
Respiratory epithelial adenomatoid hamartoma	31	Verrucous squamous cell carcinoma	84
Seromucinous hamartoma	32	Basaloid squamous cell carcinoma	85
Salivary gland tumours	33	Papillary squamous cell carcinoma	87
Pleomorphic adenoma	33	Spindle cell squamous cell carcinoma	87
Malignant soft tissue tumours	34	Adenosquamous carcinoma	89
Fibrosarcoma	34	Lymphoepithelial carcinoma	90
Undifferentiated pleomorphic sarcoma	35	Precursor lesions	91
Leiomyosarcoma	35	Dysplasia	91
Rhabdomyosarcoma	36	Squamous cell papilloma & squamous cell papillomatosis	93
Angiosarcoma	38	Neuroendocrine tumours	95
Malignant peripheral nerve sheath tumour	39	Well-differentiated neuroendocrine carcinoma	95
Biphenotypic sinonasal sarcoma	40	Moderately differentiated neuroendocrine carcinoma	96
Synovial sarcoma	41	Poorly differentiated neuroendocrine carcinoma	97
Borderline / low-grade malignant soft tissue tumours	43	Salivary gland tumours	99
Desmoid-type fibromatosis	43	Adenoid cystic carcinoma	99
Sinonasal glomangiopericytoma	44	Pleomorphic adenoma	99
Solitary fibrous tumour	45	Oncocytic papillary cystadenoma	99
Epithelioid haemangioendothelioma	46	Soft tissue tumours	100
Benign soft tissue tumours	47	Granular cell tumour	100
Leiomyoma	47	Liposarcoma	100
Haemangioma	47	Inflammatory myofibroblastic tumour	101
Schwannoma	48	Cartilage tumours	102
Neurofibroma	49	Chondroma and chondrosarcoma	102
Other tumours	50	Haematolymphoid tumours	104
Meningioma	50	4 Tumours of the oral cavity and mobile tongue	105
Sinonasal ameloblastoma	51	WHO and TNM classifications	106
Chondromesenchymal hamartoma	51	Introduction	108
Haematolymphoid tumours	52	Malignant surface epithelial tumours	109
Overview	52	Squamous cell carcinoma	109
Extranodal NK/T-cell lymphoma	52	Oral potentially malignant disorders & oral epithelial dysplasia	112
Extraosseous plasmacytoma	54	Oral potentially malignant disorders	112
Neuroectodermal/melanocytic tumours	56	Oral epithelial dysplasia	112
Ewing sarcoma/primitive neuroectodermal tumours	56	Proliferative verrucous leukoplakia	113
Olfactory neuroblastoma	57	Papillomas	115
Mucosal melanoma	60	Squamous cell papilloma	115
2 Tumours of the nasopharynx	63	Condyloma acuminatum	116
WHO and TNM classifications	64		

Verruca vulgaris	117	Introduction	162
Multifocal epithelial hyperplasia	117	Malignant tumours	163
Tumours of uncertain histogenesis	119	Mucoepidermoid carcinoma	163
Congenital granular cell epulis	119	Adenoid cystic carcinoma	164
Ectomesenchymal chondromyxoid tumour	119	Acinic cell carcinoma	166
Soft tissue and neural tumours	121	Polymorphous adenocarcinoma	167
Granular cell tumour	121	Clear cell carcinoma	168
Rhabdomyoma	122	Basal cell adenocarcinoma	169
Lymphangioma	122	Intraductal carcinoma	170
Haemangioma	123	Adenocarcinoma, NOS	171
Schwannoma and neurofibroma	123	Salivary duct carcinoma	173
Kaposi sarcoma	124	Myoepithelial carcinoma	174
Myofibroblastic sarcoma	125	Epithelial–myoepithelial carcinoma	175
Oral mucosal melanoma	126	Carcinoma ex pleomorphic adenoma	176
Salivary type tumours	127	Secretory carcinoma	177
Mucoepidermoid carcinoma	127	Sebaceous adenocarcinoma	178
Pleomorphic adenoma	127	Carcinosarcoma	179
Haematolymphoid tumours	128	Poorly differentiated carcinoma	180
Overview	128	Lymphoepithelial carcinoma	181
CD30-positive T-cell lymphoproliferative disorder	129	Squamous cell carcinoma	182
Plasmablastic lymphoma	129	Oncocytic carcinoma	182
Langerhans cell histiocytosis	130	Sialoblastoma	183
Extramedullary myeloid sarcoma	131	Benign tumours	185
5 Tumours of the oropharynx (base of tongue, tonsils, adenoids)	133	Pleomorphic adenoma	185
WHO and TNM classifications	134	Myoepithelioma	186
Introduction	136	Basal cell adenoma	187
Squamous cell carcinoma	136	Warthin tumour	188
Squamous cell carcinoma, HPV-positive	136	Oncocytoma	189
Squamous cell carcinoma, HPV-negative	138	Lymphadenoma	190
Salivary gland tumours	139	Cystadenoma	191
Pleomorphic adenoma	139	Sialadenoma papilliferum	192
Adenoid cystic carcinoma	139	Ductal papillomas	192
Polymorphous adenocarcinoma	140	Sebaceous adenoma	193
Haematolymphoid tumours	141	Canalicular adenoma and other ductal adenomas	194
Introduction	141	Non-neoplastic epithelial lesions	195
Hodgkin lymphoma	141	Sclerosing polycystic adenosis	195
Burkitt lymphoma	142	Nodular oncocytic hyperplasia	195
Follicular lymphoma	143	Lymphoepithelial sialadenitis	196
Mantle cell lymphoma	144	Intercalated duct hyperplasia	197
T-lymphoblastic leukaemia/lymphoma	144	Benign soft tissue lesions	198
Follicular dendritic cell sarcoma	145	Haemangioma	198
6 Tumours and tumour-like lesions of the neck and lymph nodes	147	Lipoma/sialolipoma	198
WHO classification	148	Nodular fasciitis	199
Introduction	148	Haematolymphoid tumours	200
Tumours of unknown origin	150	Extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT lymphoma)	201
Carcinoma of unknown primary	150		
Merkel cell carcinoma	151		
Heterotopia-associated carcinoma	152		
Haematolymphoid tumours	154		
Cysts and cyst-like lesions	155		
Branchial cleft cyst	155		
Thyroglossal duct cyst	156		
Ranula	156		
Dermoid and teratoid cysts	157		
7 Tumours of salivary glands	159		
WHO and TNM classifications	160		
		8 Odontogenic and maxillofacial bone tumours	203
		WHO classification	204
		Introduction	205
		Odontogenic carcinomas	206
		Ameloblastic carcinoma	206
		Primary intraosseous carcinoma, NOS	207
		Sclerosing odontogenic carcinoma	209
		Clear cell odontogenic carcinoma	210
		Ghost cell odontogenic carcinoma	211
		Odontogenic carcinosarcoma	213
		Odontogenic sarcomas	214
		Benign epithelial odontogenic tumours	215
		Ameloblastoma	215
		Ameloblastoma, unicystic type	217

Ameloblastoma, extraosseous/peripheral type	218	9 Tumours of the ear	261
Metastasizing ameloblastoma	218	WHO classification	262
Squamous odontogenic tumour	219	Introduction	263
Calcifying epithelial odontogenic tumour	220	Tumours of the external auditory canal	263
Adenomatoid odontogenic tumour	221	Squamous cell carcinoma	263
Benign mixed epithelial & mesenchymal odontogenic tumours	222	Ceruminous adenocarcinoma	264
Ameloblastic fibroma	222	Ceruminous adenoma	265
Primordial odontogenic tumour	223	Tumours of the middle and inner ear	266
Odontoma	224	Squamous cell carcinoma	266
Dentinogenic ghost cell tumour	226	Aggressive papillary tumour	266
Benign mesenchymal odontogenic tumours	228	Endolymphatic sac tumour	267
Odontogenic fibroma	228	Otosclerosis	268
Odontogenic myxoma/myxofibroma	229	Cholesteatoma	269
Cementoblastoma	230	Vestibular schwannoma	270
Cemento-ossifying fibroma	231	Meningioma	271
Odontogenic cysts of inflammatory origin	232	Middle ear adenoma	272
Radicular cyst	232		
Inflammatory collateral cysts	233	10 Paraganglion tumours	275
Odontogenic and non-odontogenic developmental cysts	234	WHO classification	276
Dentigerous cyst	234	Introduction	276
Odontogenic keratocyst	235	Carotid body paraganglioma	277
Lateral periodontal cyst and botryoid odontogenic cyst	236	Laryngeal paraganglioma	281
Gingival cysts	238	Middle ear paraganglioma	282
Glandular odontogenic cyst	238	Vagal paraganglioma	283
Calcifying odontogenic cyst	239		
Orthokeratinized odontogenic cyst	241	Contributors	285
Nasopalatine duct cyst	241	Declaration of interests	292
Malignant maxillofacial bone and cartilage tumours	243	IARC/WHO Committee for ICD-O	293
Chondrosarcoma	243	Sources of figures	294
Mesenchymal chondrosarcoma	244	Sources of tables	297
Osteosarcoma	244	References	298
Benign maxillofacial bone and cartilage tumours	246	Subject index	340
Chondroma	246	List of abbreviations	347
Osteoma	246		
Melanotic neuroectodermal tumour of infancy	247		
Chondroblastoma	248		
Chondromyxoid fibroma	249		
Osteoid osteoma	249		
Osteoblastoma	249		
Desmoplastic fibroma	250		
Fibro-osseous and osteochondromatous lesions	251		
Ossifying fibroma	251		
Familial gigantiform cementoma	253		
Fibrous dysplasia	253		
Cemento-osseous dysplasia	254		
Osteochondroma	255		
Giant cell lesions and simple bone cyst	256		
Central giant cell granuloma	256		
Peripheral giant cell granuloma	257		
Cherubism	257		
Aneurysmal bone cyst	258		
Simple bone cyst	259		
Haematolymphoid tumours	260		
Solitary plasmacytoma of bone	260		