CHAPTER 1
Problem Solving Diagrams

1.1 Opaque and largely opaque conditions related to the jaws

For conditions affecting the temporomandibular joint (TMJ), nasal cavity, paranasal sinuses, upper airway morphology, skull base and cervical spine, please refer to the dedicated chapters.

On plain films, including panoramic and cephalometric radiographs, soft tissue calcifications may be projected over the jaws (see Chapter 16).

Common conditions

- Reactive sclerosis related to a periapical inflammatory lesion (see section 5.1)
- Bone island (see section 7.3)
- Exostoses (see section 7.3)
- Torus palatinus (see section 7.1)
- Torus mandibularis (see section 7.2)
- Ectopic teeth (see section 3.4)
- Chronic pericoronitis (see section 5.3)
- Supernumerary teeth (see section 3.1)
- Cemento-osseous dysplasia including periapical osseous dysplasia (see section 9.2)
- Pulp stones (see section 3.21)
- Hypercementosis (see section 3.22)
- Odontoma (see section 10.3)
- Dens invaginatus (see section 3.11)
- Fibrous dysplasia (see section 9.1)
- Enamel pearl (see section 3.9)
- Talon cusp (see section 3.10)

Less common conditions

- Osteoma (see section 10.10)
- Malignant lesions including metastatic disease (see sections 11.1–11.3)
- Chronic osteomyelitis (see section 5.4)
- Ossifying fibroma (see section 9.3)
- Cementoblastoma (see section 10.9)
- Osteoblastoma (see section 10.14)
- Osteoid osteoma (see section 10.15)
- Paget disease of bone (see section 13.5)
- Osteopetrosis (see section 15.2)

Figure 1.1 (a) Representation of the jaws and teeth and (b) larger representation of the fully erupted tooth. Conditions that have a predilection for certain regions of the jaws and teeth are shown. Note: (1) These lesions are not necessarily more common than other conditions. See the text for lists of common and less common conditions. (2) Most of these lesions also occur elsewhere within the jaws. (3) The pointers identify a region, not a specific site.
1.2 Lucent lesions of the jaws

For conditions affecting the TMJ, nasal cavity, paranasal sinuses, upper airway morphology, skull base and cervical spine, please refer to the dedicated chapters.

Common conditions

- Caries (see section 4.1)
- Periodontal bone loss (see section 5.2)
- Tooth abrasion (see section 4.3)
- Periapical inflammatory lesion (see section 5.1)
- Root resorption (see sections 4.5–4.6)
- Radicular cyst (see section 8.1)
- Dentigerous cyst (see section 8.3)
- Stafne defect (see section 14.4)
- Simple bone cyst (see section 8.9)
- Keratocystic odontogenic tumour (see section 8.5)
- Nasopalatine duct cyst (see section 8.10)
- Residual cyst (see section 8.2)
- Cemento-osseous dysplasia (see section 9.2)

Less common conditions

- Osteoradionecrosis (see section 6.1)
- Osteonecrosis of the jaws (see section 6.2)
- Buccal bifurcation cyst (see section 8.4)
- Lateral periodontal cyst (see section 8.7)
- Osteomyelitis (see section 5.4)
- Malignant lesions including metastatic disease (see sections 11.1–11.3)
- Vascular anomalies (see sections 12.1–12.4)
- Cleft lip and palate (see section 14.5)
- Ameloblastoma (see section 10.1)
- Schwannoma (see section 10.13)
- Langerhans cell histiocytosis (see section 13.4)
- Nasolabial cyst (see section 8.11)
- Glandular odontogenic cyst (see section 8.8)
- Ameloblastic fibroma (see section 10.4)

Figure 1.2 (a) Representation of the jaws and teeth and (b) larger representation of the fully erupted tooth. Conditions that have a predilection for certain regions of the jaws are shown. Note: (1) These lesions are not necessarily more common than other conditions. Refer to the text for lists of common and less common conditions. (2) Most of these lesions also occur elsewhere within the jaws. (3) The pointers identify a region, not a specific site.
1.3 Mixed density lesions of the jaws

For conditions affecting the TMJ, nasal cavity, paranasal sinuses, upper airway morphology, skull base and cervical spine, please refer to the dedicated chapters.

Common conditions
- Chronic pericoronitis (see section 5.3)
- Cemento-osseous dysplasia (see section 9.2)
- Odontoma (see section 10.3)
- Fibrous dysplasia (see section 9.1)

Less common conditions
- Osteoradionecrosis (see section 6.1)
- Osteonecrosis of the jaws (see section 6.2)
- Osteomyelitis (see section 5.4)
- Ameloblastoma (see section 10.1)
- Central giant cell granuloma (see section 13.1)
- Odontogenic myxoma (see section 10.8)
- Ossifying fibroma (see section 9.3)
- Vascular anomalies (see sections 12.1–12.4)
- Malignant lesions including metastatic disease (see sections 11.1–11.3)
- Aneurysmal bone cyst (see section 13.3)
- Ameloblastic fibro-odontoma (see section 10.5)
- Adenomatoid odontogenic tumour (see section 10.6)
- Calcifying cystic odontogenic tumour (see section 10.7)
- Paget disease of bone (see section 13.5)
- Calcifying epithelial odontogenic tumour (Pindborg) (see section 10.2)
- Osteoblastoma (see section 10.14)
- Osteoid osteoma (see section 10.15)
- Desmoplastic fibroma (see section 10.16)
- Cherubism (see section 13.2)