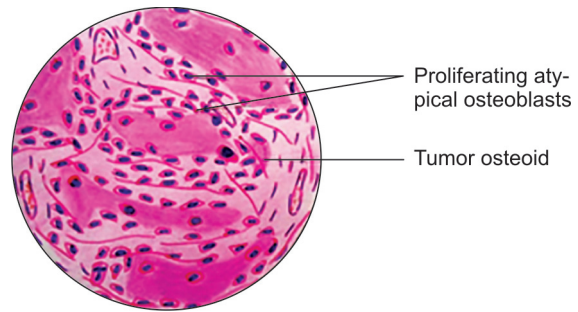
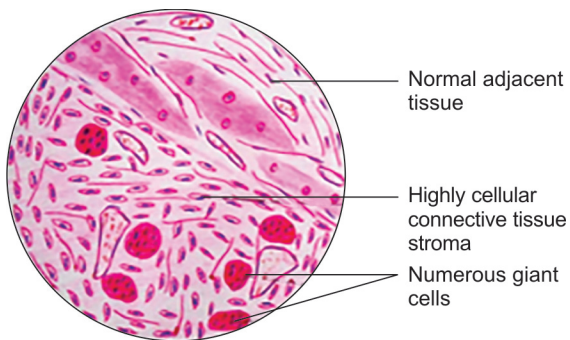


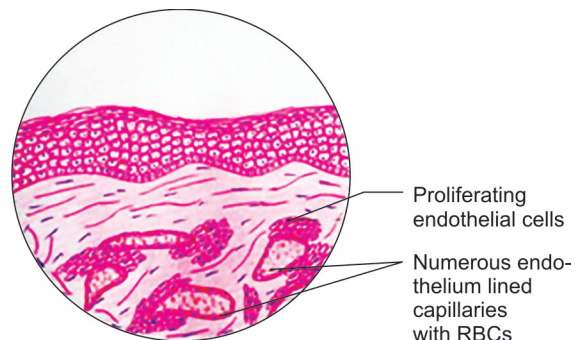
**Fig. 2.8:** Verrucous carcinoma



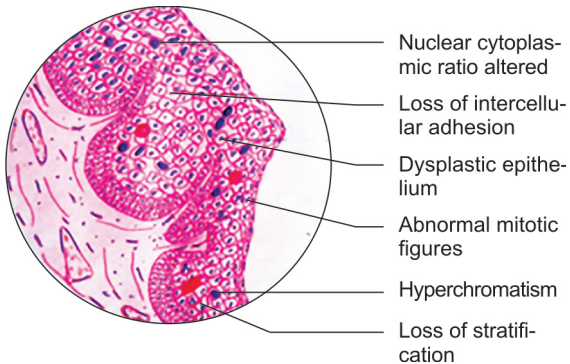
**Fig. 2.12:** Osteosarcoma



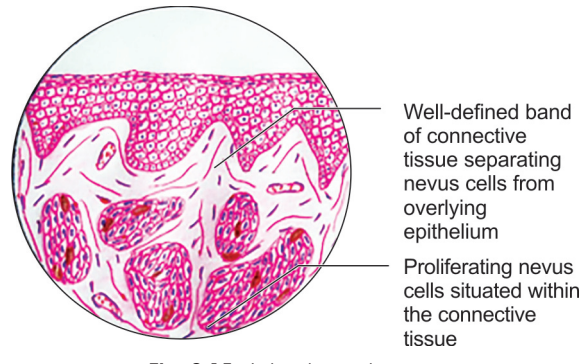
**Fig. 2.9:** Central giant cell granuloma



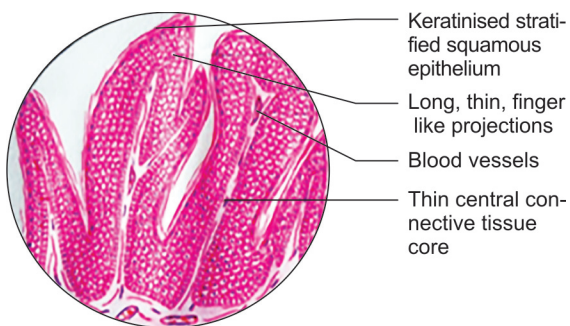
**Fig. 2.13:** Capillary hemangioma



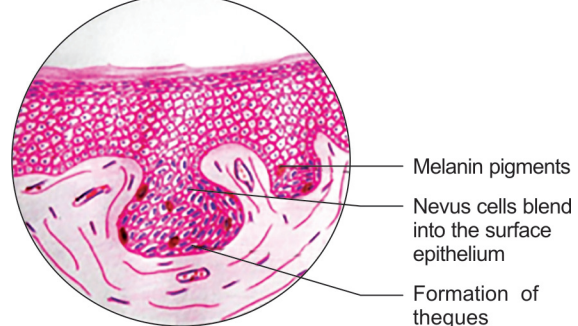
**Fig. 2.10:** Carcinoma *in situ*



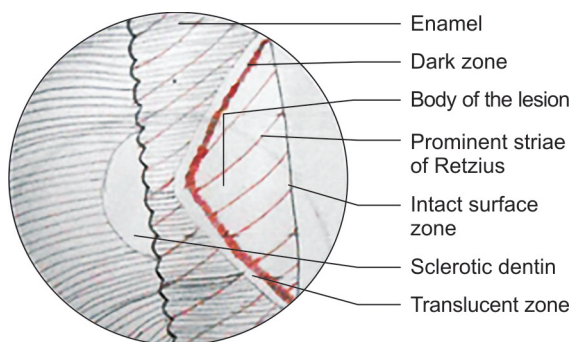
**Fig. 2.15:** Intradermal nevus



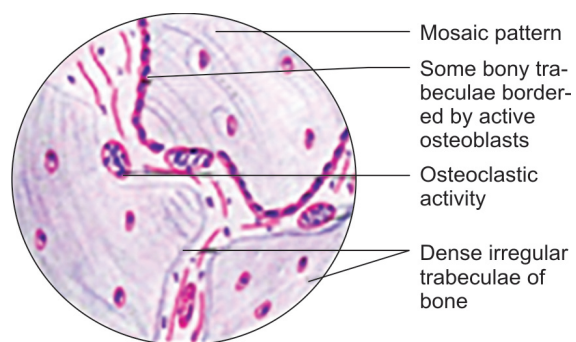
**Fig. 2.11:** Papilloma



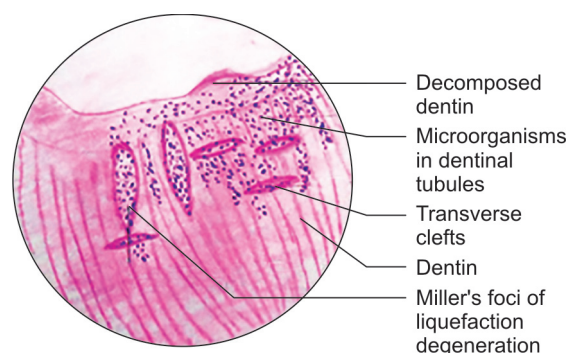
**Fig. 2.16:** Junctional nevus



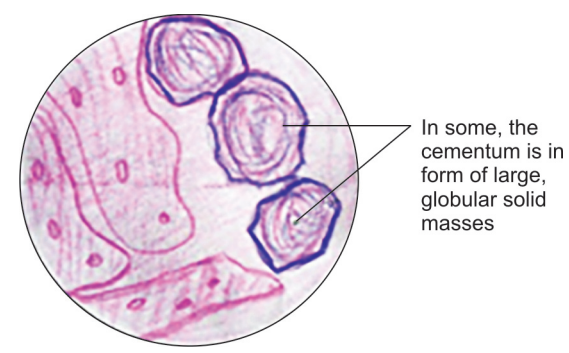
**Fig. 9.2:** Enamel caries (smooth surface—ground section)



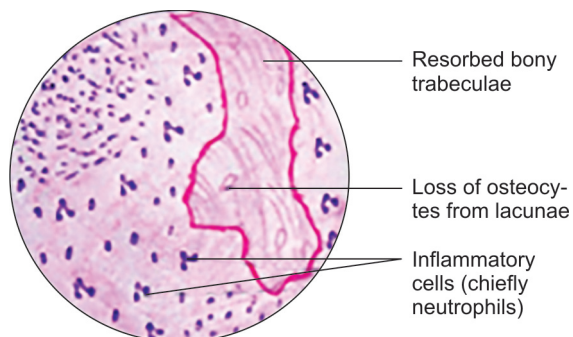
**Fig. 10.3:** Chronic diffuse sclerosing osteomyelitis



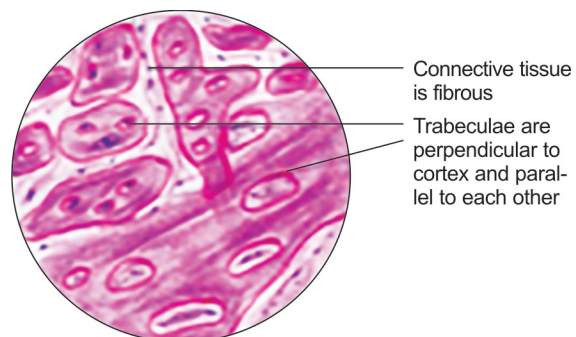
**Fig. 9.3:** Dentinal caries (decalcified section)



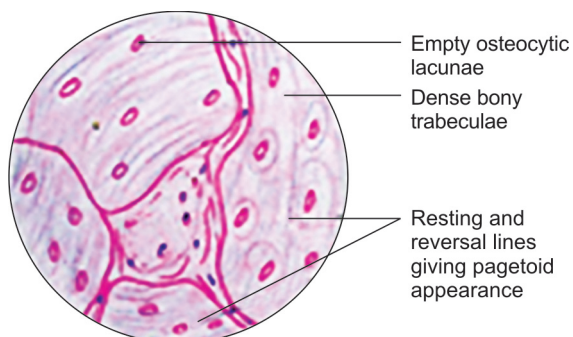
**Fig. 10.4:** Sclerotic cemental masses



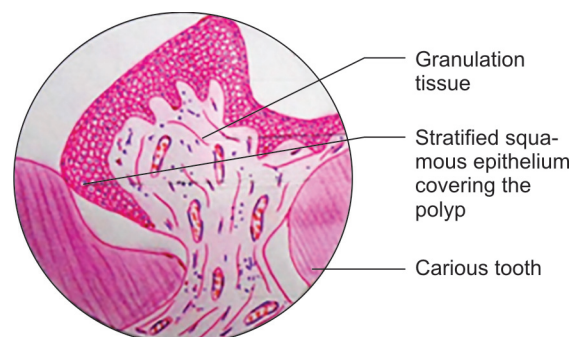
**Fig. 10.1:** Acute osteomyelitis



**Fig. 10.5:** Chronic osteomyelitis with proliferative periostitis



**Fig. 10.2:** Chronic focal sclerosing osteomyelitis



**Fig. 10.7:** Chronic hyperplastic pulpitis

3. Hypoplasia due to Nutritional Deficiency and Exanthematous Fevers
4. Enamel Hypoplasia due to Congenital Syphilis
5. Enamel Hypoplasia due to Hypocalcemia
6. Hypoplasia due to Birth Injuries
7. Enamel Hypoplasia due to Local Infection or Trauma
8. Enamel Hypoplasia due to Fluoride
9. Dentinogenesis Imperfecta
10. Dentin Dysplasia
11. Regional Odontodysplasia
12. Dentin Hypocalcification

#### AMELOGENESIS IMPERFECTA

- A complex inheritance pattern gives rise to Amelogenesis imperfecta (AI), a structural defect of the tooth enamel.
- It may be differentiated into three main groups: Hypoplastic (HP), Hypocalcified (HC), and Hypomature (HM), depending on the clinical presentation of the defects and the likely stage of enamel formation that is primarily affected.

#### Classification by Witkop (1989)

|                 |  |
|-----------------|--|
| <b>Type I</b>   | Hypoplastic                                    |
| IA              | Hypoplastic, pitted autosomal dominant         |
| IB              | Hypoplastic, local autosomal dominant          |
| IC              | Hypoplastic, local autosomal recessive         |
| ID              | Hypoplastic, smooth, autosomal dominant        |
| IE              | Hypoplastic, smooth X-linked dominant          |
| IF              | Hypoplastic, rough autosomal dominant          |
| IG              | Enamel agenesis, autosomal recessive           |
| <b>Type II</b>  | Hypomaturation                                 |
| IIA             | Hypomaturation, pigmented autosomal recessive. |
| IIB             | Hypomaturation, X-linked recessive.            |
| IIC             | Snow-capped teeth, autosomal dominant.         |
| <b>Type III</b> | Hypocalcified                                  |
| IIIA            | Autosomal dominant                             |
| IIIB            | Autosomal recessive                            |
| <b>Type IV</b>  | Hypomaturation-hypoplastic with taurodontism   |
| IVA             | Hypomaturation-hypoplastic with taurodontism.  |
| IVB             | Hypoplastic-hypomaturation with taurodontism.  |

#### Radiographic Features

- The overall shape of the tooth may or may not be normal, depending upon the amount of enamel present on the tooth and the amount of occlusal and incisal wear.
- The enamel may appear totally absent on the radiograph, or when present, may appear as a very thin layer, chiefly over the tips of the cusps and on the interproximal surfaces.

#### Histologic Features

- The general histologic features of the enamel also parallel the general type of Amelogenesis imperfecta that has been diagnosed.
- There is a disturbance in the differentiation or viability of ameloblasts in the hypoplastic type, and this is reflected in defects in matrix formation up to and including total absence of matrix.
- In the hypocalcification types there are defects of matrix structure and of mineral deposition.
- Finally, in the hypomaturation types there are alterations in enamel rod and rod sheath structures.

#### DENTINOGENESIS IMPERFECTA

- It is a hereditary developmental disturbance of the dentin in the absence of any systemic disorder.
- Similar dental changes may be seen in conjunction with the systemic hereditary disorder of bone, osteogenesis imperfecta.

#### Classification

| <i>Shields</i>                | <i>Clinical presentation</i>                  | <i>Witkop</i>               |
|-------------------------------|---|-----------------------------|
| Dentinogenesis imperfecta I   | Osteogenesis imperfecta with opalescent teeth | Dentinogenesis imperfecta   |
| Dentinogenesis imperfecta II  | Isolated opalescent teeth                     | Hereditary opalescent teeth |
| Dentinogenesis imperfecta III | Isolated opalescent teeth                     | Brandywine isolate          |

3. Thyroglossal tract cyst
4. Benign cervical lymphoepithelial cyst
5. Epidermoid and dermoid cyst
6. Heterotopic oral gastrointestinal cyst

#### **GLOBULOMAXILLARY CYST**

- The globulomaxillary cyst is found within the bone at the junction of the globular portion of the medial nasal process and the maxillary process, the globulomaxillary fissure, usually between the maxillary lateral incisor and cuspid teeth.

#### **Etiology**

- The cause of the proliferation of epithelium entrapped along this line of fusion is unknown.
- *Christ* has also thoroughly evaluated the literature dealing with globulomaxillary cysts and has concluded that, embryologically, facial processes per se do not exist, and therefore, ectoderm does not become entrapped in the facial fissures of the nasomaxillary complex.
- Thus, he believes that this cyst should be removed from the category of orofacial fissural cysts, since modern embryologic concepts do not support such a view.
- Instead, he suggests that an odontogenic origin for this cyst is far more likely.

#### **Clinical Features**

- Seldom if ever presents clinical manifestations.
- Rarely, the cyst does become infected, and the patient may complain of local discomfort or pain in the area.

#### **Radiographic Features**

- This cyst, on the intraoral radiograph, characteristically appears as an inverted, pear-shaped radiolucent area between the roots of the lateral incisor and cuspid, usually causing divergence of the roots of these teeth.
- The teeth associated with a Globulomaxillary cyst are vital unless coincidentally infected.

#### **Histologic Features**

- Classically has been described as being lined by either stratified squamous or ciliated columnar epithelium.
- The remainder of the wall is made up of fibrous connective tissue, usually showing inflammatory cell infiltration.

#### **Treatment**

- Cyst should be surgically removed, preserving the adjacent teeth if possible.

### **5. Enumerate developmental disturbances of tongue. Write in detail about geographic tongue.**

#### **DEVELOPMENTAL DISTURBANCES OF TONGUE ARE**

1. Aglossia and microglossia syndrome
2. Macroglossia
3. Ankyloglossia or tongue-tie
4. Cleft tongue
5. Fissured tongue
6. Median rhomboid glossitis
7. Benign migratory glossitis
8. Hairy tongue
9. Lingual varices
10. Lingual thyroid nodule

#### **GEOGRAPHIC TONGUE**

##### **Synonyms**

- Benign migratory glossitis
- Wandering rash of the tongue

##### **Definition**

- A psoriasiform mucositis of the dorsum of the tongue.

##### **Etiology**

- It is unknown, but it seems to become more prominent during conditions of psychological stress.
- It is found with increased frequency in persons with psoriasis of the skin.

##### **Clinical Features**

- Approximately 1–2% of the population are affected.
- Its dominant characteristics are a constantly changing pattern of serpiginous white lines surrounding areas of smooth, depapillated mucosa.

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