

## Soft Tissue and Bone Face Tumors

A tumor is a lump or mass of tissue that forms when cells divide uncontrollably. A growing tumor may replace healthy tissue with abnormal tissue. It may weaken the bone, causing it to break (fracture). Aggressive tumors can lead to disability or death, particularly if signs and symptoms are ignored.

Tumors in children are different from adult in their etiology, pathomorphological structure and clinical appearance. 12,4% of maxillofacial tumors are occur in children, however, 95% are benign, and 5% malignant.

Most of the tumors are disembryogenesis origin, that mean they are proceed from genetic program disorders during intracellular multiplication, growth and differentiation of the embryo. That is demonstrated by the examinations showing that most of the tumors in children are occur before 5 years, mesenchimal origin of the tumors (no epithelial), very othen tumors are combine with others malformations. Most of the soft tissue tumors in maxillofacial region in children arise from conjunctive tissue (vessels tumors). Oral tumors a connecting with odontogenesis and arise from odontogenic epithelium.

Tumors are likely to develop from immature or ectopic tissue and may appear in conjunction with obvious developmental anomalies such as an unerupted displaced tooth. They may arise in areas of rapid growth. Other theories indicate heredity.

**Frequency.** In general, benign soft tissue tumors occur at least 10 times more frequently than malignant ones, although the true incidence of soft tissue tumors is not well documented. However, some insight regarding the incidence of soft tissue sarcomas can be derived from the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program, which, between 1973 and 1983, accumulated data on 6883 such tumors. 1. Overall, age-adjusted annual incidence of soft tissue sarcomas ranges from 15-35 per 1 million population. The rate increases steadily with age and is slightly higher in men than in women. 2. Malignant soft tissue tumors occur twice as often as primary bone sarcomas. 3. Approximately 45% of sarcomas occur in the lower extremities, 15% in the upper extremities, 10% in the head-and-neck region, 15% in the retroperitoneum, and the remaining 15% in the abdominal and chest wall. Visceral sarcomas, arising from the connective tissue stroma in parenchymal organs, are not common.

According to the United States date childhood cancer is relatively rare -- only about 2 percent of all cancer cases occur in children. Each year, about one out of every 15,000 children gets cancer. In 1998, the most recent year for which

there are data, about 12,400 U.S. children under 20 were found to have cancer. That same year, 2,500 children died from the disease. Rates of childhood cancer have risen over the past few decades, so the disease is more common now than it once was. Cancer kills more children than any other disease, and is the second most common cause of death in children, behind injuries. But while the number of new cases of childhood cancer has risen, the death rate has decreased for most forms since 1970, largely because of improved treatments. childhood cancer increased significantly from the early 1970s to the early 1990s, rising about 1 percent each year during those two decades. Since the 1990s, rates of childhood cancer seem to have leveled off, but there is no evidence of a decline back to pre-1980 rates.

**Etiology.** 1. Genetic conditions: Good evidence exists suggesting that certain genetic disorders and gene mutations are predisposing factors for some benign and malignant soft tissue tumors. 2. Radiation: Similar to postirradiation bone tumors, postirradiation fibrosarcomas have been described. The pathogenetic mechanism is the emergence of radiation-induced genetic mutations that encourage neoplastic transformation. 3. Chronic lymphedema: as observed in patients with late-stage breast carcinoma, chronic lymphedema may predispose individuals to the development of lymphangiosarcoma. 4. Environmental carcinogens: an association between exposure to various carcinogens and an increased incidence of soft tissue tumors has been reported. The occurrence of hepatic angiosarcoma, for example, has been linked to arsenic, thorium dioxide, and vinyl chloride exposure. 5. Infection: a classic example of an infection-induced soft tissue tumor is Kaposi sarcoma resulting from human herpesvirus type 8 in patients with human immunodeficiency virus (HIV). 6. Trauma: the relationship between trauma and soft tissue tumors appears to be coincidental. Trauma probably draws medical attention to a pre-existing lesion.

**Pacularities.** Children's cancer is not only less frequent than adult cancer, it is also different. None of the most common adult cancers -- prostate, breast, lung, colon -- are found in children. Instead, children tend to get leukemias, brain tumors and other cancers of the blood and connective tissues. Adult cancers are thought to occur because of years of cumulative damage to the cells. In children, this kind of long-term damage has not had a chance to take place. Their cancers are thought to occur, instead, during periods of vulnerability during early development, when the organs are still forming.

Tumors at the pediatric skull base can be broadly categorized into congenital (nazal glioma, encephalocele, and dermoid cyst as well as teratoma, hamartoma and choristoma) and true neoplasma (olfactory neuroblastoma, angiofibroma, nazopharyngeal carcinoma and rhabdomyosarcoma). Clinical evaluation often gives significant clues as to the nature of skull base pathology. The time of onset (at birth or postnatal), localization (near the lines of fusion or not), and tumor progression (static or enlarging) all contribute to the accuracy

of diagnosis.

In children and adolescents, neoplastic lesions are often benign and are of mesenchymal origin. Choung and Kaban were of the opinion that tumor histology in this age group did not correspond to their clinical behaviour.

There are significant differences that must be considered in the surgical management of skull base lesions in the pediatric patient. Neoplastic lesions as well as surgically manipulated tissue dynamically interact with growth potential of the regional anatomy before and after treatment. This impact on growth is an important distinction between pediatric and adult skull base surgery that has to be considered during oncologic surgery as well as reconstruction.

There are differences between age group in terms of etiology, pathophysiology, and treatment of the pediatric neck mass. In adult neck mass is to be considered malignant until proven otherwise. The etiology of the pediatric neck mass is more often infectious or congenital.

Proper diagnosis of any disease process begins with history and physical examination. In the case of pediatric neck masses, this is a crucial step. In younger patients, the parents will need to provide the history. Whereas congenital lesions frequently present at birth, some not be noticed until later infancy (e.g. vascular malformations), early childhood (e.g. vascular malformations) early childhood (e.g. thyroglossal duct cysts), or young adulthood (e.g. branchial cleft cysts). Granulomatous diseases such as scrofula usually follow a chronic course, accompanied by fever or low-grade temperature.

Acute bacterial infection such as suppurative sialadenitis usually presents suddenly with pain and discomfort, inflammatory signs, and fever. Neoplasms typically have either an asymptomatic presentation or nonspecific constitutional symptom complex (e.g. Hodgkin's lymphoma). Few malignant lesions are present at birth, with the exception of rhabdomyosarcoma, or an occasional neuroblastoma presenting in the cervical region. Malignant lesions tend to present in the teenage years. The spectrum of malignancies in children is age related and different from that of adult. Pain associated with these lesions usually is seen in late stages. The masses may result in airway compromise because of direct compression. Increased tenderness and swelling during meals may be associated with obstruction of a salivary gland duct by stricture or stone. Enlargement of the neck mass during crying may be associated with filling of vascular channels as a result of decreased venous return.

Environmental factors must be considered in the etiology of the pediatric neck mass. Radiation exposure is associated with an increased risk of thyroid cancer and salivary tumors. Dilantin and other drugs may lead to cervical adenopathy. Tropical diseases may appear in those immigrants from endemic areas, or in those with recent travel histories to those areas. Breakage of skin by a cat's claws may lead to cat scratch fever. Cockroaches and cats have been known to carry toxoplasmosis. Fungal diseases have been associated with swimming in contaminated waters.

The physical examination of a pediatric patient may pose unique challenges. Compliance may be difficult or impossible to obtain. In any case, one must make the best attempt, so as to acquire the most information about the patient's condition. Although the area of concern is typically smaller than in the adult, one should keep in mind that the neck of a child is not a smaller version of the adult. The cartilaginous infant trachea is less prominent and found more cranially than in the adult. Pediatric pathology is more apt to show metabolic or embryologic abnormalities than the adult population. There are also marked differences between subgroups of the pediatric population. Minimal changes in the shape or volume of underlying structures can produce masses that serve as the primary motivator for parents to seek medical advice. The pediatric neck has an abundance of adipose tissue until the age of 9 months when the amount of baby fat starts to decrease, continuing throughout the second year of life. This may lead to a delay in seeking medical advice and more a challenge in diagnosis and treatment.

Inspection in the pediatric neck exam, includes the identification of normal landmarks. Asymmetry, deformities, masses, scars, pulsations, discolorations, sinuses, or fistulas are noted. The oral cavity and oropharynx must be visually inspected. Having the patient swallow will also help identify abnormalities. Masses attached to thyroid gland, as well as thyroglossal duct cysts, move with deglutination or tongue protrusion. Dermoid cysts are usually attached to and therefore move with the skin. Cavernous hemangiomas tend to increase in size when the head is lowered as a result of venous congestion.

Palpation may prove to be a challenge in young children, particularly those with tender lesions. One should attempt to control head motion with the opposite hand while palpating. Location of a mass, may point to the diagnosis. The sternocleidomastoid muscle serves as a landmark that divides the neck into the anterior and posterior triangular spaces. Cervical masses are more commonly found in the anterior triangle. Approximately two thirds of all neck masses in children are inflammatory. Of the remaining lesions, the most common mass of the anterior triangle is the branchial cleft cyst. Midline lesions are commonly thyroglossal duct cysts.

Physical examination characteristics of the lesion are also important factors. Sebaceous cysts are usually firmly attached to the epidermis, and therefore one is not able to roll the skin over the surface. Benign masses usually are not attached to skin or deep structures and thus are usually mobile. Malignancies, both primary and metastatic, can be attached to a skin and adjacent organs. Cancer are usually localized lesions in the pediatric population. Degenerative lesions of salivary glands (Sjogren syndrome) present as diffuse disease. Lipomas typically feel soft and localized. Benign lymph nodes feel soft, well defined, and mobile. Advanced malignancies typically feel woody and hard. Lymphomas tend to feel rubbery. Cysts feel as though there is an interface between solid and liquid. Cavernous hemangiomas may feel like a bag of

worms' with occasional firmness from particles of calcium (phleboliths). Abscess are tender and feel fluctuant. Air in the neck is perceived as crepitation. Pulsation may be derived from an aneurysm or carotid body tumor.

**Classification.** Soft tissue tumors are a large and heterogeneous group of neoplasms. Traditionally, tumors have been classified according to histogenetic features. (Fibrosarcoma, for example, is categorized as a tumor arising from fibroblasts.) However, histomorphologic, immunohistochemical, and experimental data suggest that most, if not all, sarcomas arise from primitive, multipotential mesenchymal cells, which in the course of neoplastic transformation differentiate along one or more lines. A liposarcoma appears to arise from a lipoblast but may actually develop through lipoblastic differentiation of a precursor multipotent mesenchymal cell. At the clinical level, soft tissue tumors are classified according to various parameters, including location, growth pattern, likelihood of recurrence, presence and distribution of metastases, patient age, and prognosis. **WHO (2002) Classification of Soft Tissue Tumors**

- Adipocytic tumors
  - Benign
    - [Lipoma](#)
    - Lipomatosis
    - Lipomatosis of nerve
    - Lipoblastoma/lipoblastomatosis
    - Angiolipoma
    - [Myolipoma](#)
    - Chondroid lipoma
    - Extrarenal angiomyolipoma
    - Extra-adrenal myelolipoma
    - Spindle cell/pleomorphic lipoma
    - Hibernoma
  - Intermediate (locally aggressive)
    - Atypical lipomatous tumor/well-differentiated liposarcoma
  - Malignant
    - Dedifferentiated [liposarcoma](#)
    - Myxoid liposarcoma
    - Round cell liposarcoma
    - Pleomorphic liposarcoma
    - Mixed-type liposarcoma
    - Liposarcoma, not otherwise specified
- Fibroblastic/myofibroblastic tumors
  - Benign
    - Nodular [fasciitis](#)

- Proliferative fasciitis
- Proliferative myositis
- Myositis ossificans
  - Fibro-osseous pseudotumor of digits
- Ischemic fasciitis
- Elastofibroma
- Fibrous hamartoma of infancy
- Myofibroma/myofibromatosis
- Fibromatosis colli
- Juvenile hyaline fibromatosis
- Inclusion body fibromatosis
- Fibroma of tendon sheath
- Desmoplastic fibroblastoma
- Mammary-type myofibroblastoma
- Calcifying aponeurotic fibroma
- Angiomyofibroblastoma
- Cellular angiofibroma
- Nuchal-type fibroma
- [Gardner](#) fibroma
- Calcifying fibrous tumor
- [Giant cell](#) angiofibroma
- Intermediate (locally aggressive)
  - Superficial fibromatoses - Palmar/plantar
  - Desmoid-type fibromatoses
  - Lipofibromatosis
- Intermediate (rarely metastasizing)
  - Solitary fibrous tumor and hemangiopericytoma - Including lipomatous hemangiopericytoma
  - Inflammatory myofibroblastic tumor
  - Low-grade myofibroblastic sarcoma
  - Myxoinflammatory fibroblastic sarcoma
  - Infantile fibrosarcoma
- Malignant
  - Adult fibrosarcoma
  - Myxofibrosarcoma
  - Low-grade fibromyxoid sarcoma
    - Hyalinizing spindle cell tumor
  - Sclerosing epithelioid fibrosarcoma
- So-called fibrohistiocytic tumors
  - Benign
    - Giant cell tumor of tendon sheath
    - Diffuse-type giant cell tumor
    - Deep benign fibrous histiocytoma

- Intermediate (rarely metastasizing)
    - Plexiform fibrohistiocytic tumor
    - Giant cell tumor of soft tissues
  - Malignant
    - Pleomorphic 'MFH'/undifferentiated pleomorphic sarcoma
    - Giant cell 'MFH'/undifferentiated pleomorphic sarcoma with giant cells
    - Inflammatory 'MFH'/undifferentiated pleomorphic sarcoma with prominent inflammation
- Smooth muscle tumors
  - Angioleiomyoma
  - Deep [leiomyoma](#)
  - Genital leiomyoma
  - Leiomyosarcoma - Excluding skin
- Pericytic (perivascular) tumors
  - [Glomus tumor](#) (and variants)
    - Malignant glomus tumor
  - Myopericytoma
- Skeletal muscle tumors
  - Benign
    - Rhabdomyoma
      - Adult
      - Fetal
      - Genital type
  - Malignant
    - Embryonal rhabdomyosarcoma - Including spindle cell, botryoid, anaplastic
    - Alveolar rhabdomyosarcoma - Including solid and anaplastic
    - Pleomorphic [rhabdomyosarcoma](#)
- Vascular tumors
  - Benign
    - Hemangiomas of subcutaneous and deep soft tissue
      - Capillary
      - Cavernous
      - Arteriovenous
      - Venous
      - Intramuscular
      - Synovial
    - Epithelioid [hemangioma](#)
    - Angiomatosis
    - Lymphangioma
  - Intermediate (locally aggressive)
    - Kaposiform hemangioendothelioma

- Intermediate (rarely metastasizing)
  - Retiform hemangioendothelioma
  - Papillary intralymphatic angioendothelioma
  - Composite hemangioendothelioma
  - [Kaposi sarcoma](#)
- Malignant
  - Epithelioid hemangioendothelioma
  - Angiosarcoma of soft tissue
- Chondro-osseous tumors
  - Benign
    - Soft tissue [chondroma](#)
  - Malignant
    - Mesenchymal chondrosarcoma
    - Extraskeletal osteosarcoma
- Tumors of uncertain differentiation
  - Benign
    - Intramuscular myxoma - Including cellular variant
    - Juxta-articular myxoma
    - Deep ("aggressive") angiomyxoma
    - Pleomorphic hyalinizing angiectatic tumor
    - Ectopic hamartomatous thymoma
  - Intermediate (rarely metastasizing)
    - Angiomatoid fibrous histiocytoma
    - Ossifying fibromyxoid tumor - Including atypical/malignant
    - Mixed tumor
      - Myoepithelioma/parachordoma
  - Malignant
    - Synovial sarcoma
    - Epithelioid sarcoma
    - Alveolar soft-part sarcoma
    - Clear cell sarcoma of soft tissue
    - Extraskeletal myxoid chondrosarcoma - "Chordoid" type
    - Primitive neuroectodermal tumor (PNET)/extraskeletal Ewing tumor
      - Peripheral PNET
      - Extraskeletal Ewing tumor
    - Desmoplastic small round cell tumor
    - Extra-renal rhabdoid tumor
    - Malignant mesenchymoma
    - Neoplasms with perivascular epithelioid cell differentiation (PEComa)
      - Clear cell myomelanocytic tumor
    - Intimal sarcoma



As part of this 2002 WHO classification, soft tissue tumors are divided into the following 4 categories.

- *Benign* - These usually do not recur locally, and if they do, the recurrence is nondestructive and almost always readily curable by complete local excision. Morphologically benign lesions, which are extremely rare, may give rise to distant metastases, which cannot be predicted on the basis of routine, contemporary histologic evaluation. This is best documented in rare, cutaneous benign fibrous histiocytoma.
- *Intermediate* (locally aggressive) - These tumors show an infiltrative and locally destructive growth pattern. However, although they may recur locally, they do not metastasize. They usually require excision with a wide margin of normal tissue for better local control. The example in this category is desmoid (fibromatosis).
- *Intermediate* (rarely metastasizing) - These tumors are often locally aggressive, but in some cases, they also have a tendency to produce distant metastases (usually in a lymph node or lung). This risk is low (<2%), but histomorphologically, it is not reproducibly predictable. The classic examples in this group are plexiform fibrohistiocytic tumor and angiomatoid fibrous histiocytoma.
- *Malignant* - Soft tissue sarcomas are locally destructive with the potential to recur. The risk of distant metastasis is significant. (Depending on histologic type and grade, the potential ranges from 20% to almost 100%). Histologically low-grade sarcomas have a lower chance of metastasis (only 2-10%).<sup>18</sup> However, the recurrences of such tumors may advance in grade and attain a higher risk of metastatic potential similar to that associated with myxofibrosarcoma and leiomyosarcoma.

#### **Diagnostic Procedures**

**Laboratory Studies.** Other than histologic and cytogenetic analysis, no specific laboratory tests exist for diagnosing soft tissue tumors.

Biopsy usually is indicated for a soft tissue mass arising in a patient without a history of trauma or for a mass that persists for more than 6 weeks following local trauma. All soft tissue masses larger than 5 cm, as well as any enlarging or symptomatic lesions, also should be biopsied. Small, subcutaneous lesions that persist unchanged for years may be considered for observation rather than biopsy. A high level of suspicion is necessary to ensure early treatment.

Early tissue diagnosis is the most important component of multimodality treatment for soft tissue tumor. Proper and timely biopsy is critical. An inadequately performed biopsy may complicate patient care and result in loss of limb or life. Several biopsy techniques are available, including FNAB, core needle biopsy, incisional biopsy, and excisional biopsy. The choice of biopsy is based on the size and location of the mass

and the experience of the surgeon. Excisional biopsy is indicated only for small, superficial masses (<3-5 cm in greatest dimension), in which the probability of malignancy is low. Effective reexcision is more likely for smaller malignant lesions that initially are unintentionally treated as benign.

- Fine-needle aspiration biopsy
  - This is a cytologic technique involving the use of a fine-gauge (usually 21- to 25-gauge) needle to aspirate individual tumor cells and microfragments from the mass. The aspirated material can be examined as a cytology smear, with immediate evaluation of specimen adequacy.

**Imaging Studies.** In the past 2 decades, imaging studies have contributed greatly to the management of soft tissue tumors. Imaging studies should be obtained before biopsy to ensure that a biopsy of a potentially malignant lesion is taken in a manner that will not preclude limb-salvage surgery. Imaging should also be performed before biopsy, to prevent the biopsy tract from adversely affecting the capture of anatomic detail by magnetic resonance imaging (MRI). The relationship of the tumor and surrounding normal structures to the planned biopsy site should be evaluated, as should the functional status of the involved limb, signs of lymph node involvement, and any other factors that could compromise optimal surgical or radiation therapy.

- Because prognosis is primarily dependent on the disease stage rather than the histologic tumor type, evaluation of local and distant extent is pivotal in the ultimate management of soft tissue sarcoma. Imaging methods commonly used for such evaluation include plain radiographs, computed tomography (CT) scanning, MRI, and bone scintigraphy (bone scan). Positron emission tomography (PET) scanning is being used more frequently to assess the metabolic activity and, presumably, the biologic aggressiveness of a lesion. Angiography to evaluate any vascular involvement by soft tissue tumors has essentially been replaced by MRI.
  - CT scanning
    - Check for presence and number of pulmonary metastases.
    - Consider performing a CT scan of the liver in cases of intra-abdominal or retroperitoneal tumors.
  - MRI
    - In contrast to CT scanning, MRI is not limited to the transverse (axial) plane. Coronal, sagittal, and oblique planes may be imaged.
    - MRI best defines the relationship between a tumor and adjacent anatomic structures, such as compartment boundaries, nerves, vessels, and muscle.<sup>7,8</sup>

- Although for most patients MRI alone suffices, the information obtained from CT scanning and MRI of the primary tumor occasionally may be complementary. Bony involvement may be better assessed with a CT scan, as may the boundary between normal muscle and fibrous lesions

### **Medical Therapy**

High-grade soft tissue sarcomas often are treated with ifosfamide- and doxorubicin-based chemotherapy. This is controversial, as no definitive studies exist proving that adjuvant chemotherapy contributes to prolonged overall survival.<sup>[20,21](#)</sup>

### **Surgical Therapy**

**Localized tumors.** Complete local excision is adequate treatment for benign soft tissue tumors. However, a variety of treatment options, including surgery alone or combined with radiation therapy or chemotherapy, may be considered for treatment of localized primary and recurrent sarcomas.

**Extremity sarcoma.** Extremity sarcomas may be treated surgically, with or without radiation therapy and adjuvant chemotherapy.

Surgery is the most important component of any treatment plan for a clinically localized primary or recurrent soft tissue sarcoma. On the basis of the achievable margin, 4 types of excisions may be performed.

- Intracapsular excisions and amputation - The excision or amputation passes within the tumor itself. The tumor inside the pseudocapsule is removed (often piecemeal). Incidence of local recurrence with these types of excisions is virtually 100%; these procedures are performed only in unusual circumstances.
- Marginal excisions and amputation - The excision is performed through the pseudocapsule surrounding the tumor. Shelling-out procedures and most excisional biopsies belong to this category. The chance of local recurrence is 20-75%, depending on the nature of the tumor and whether or not radiotherapy is used.
- Wide excisions and amputation - The tumor is excised with a wide margin of surrounding normal tissue but within the muscular compartment. Without adjuvant therapy, the incidence of local recurrence following wide excision varies but may reach 30%; the rate of recurrence depends on the selection criteria used and the adequacy of the histologically assessed surgical margin. A wide amputation is performed through the normal tissue proximal to the reactive zone around the tumor but remains within the involved compartment. Limb-sparing procedures belong to this category.

- Radical excisions and amputation - These are en bloc excisions of the tumor along with the entire muscle compartment. Amputation with disarticulation of the joint proximal to the involved compartment is called radical amputation. The risk of local recurrence is lowest with this procedure.

For better local control, many patients undergoing surgical excision receive radiation therapy. In patients who refuse or cannot tolerate surgery, radiation alone can be an effective treatment for certain extremity sarcomas.

- Postoperative radiation therapy - Following wide surgical excision, radiation therapy enhances local control for primary extremity sarcomas. The concept of limb-sparing surgery with postoperative radiation has been validated by randomized trials of amputation versus wide local excision.<sup>22</sup> Usually, a total dose of about 60 grays (Gy) is adequate.
- Brachytherapy - Postoperative radiation can also be delivered to the tumor bed by means of brachytherapy (in which radioactive sources are implanted in the patient). The advantage of this approach is that it requires a much shorter time for initiation and completion of therapy than does external radiation. External beam radiation is used for 6 weeks beginning a month or more following surgery; brachytherapy usually is started within a week of surgery and completed in 4 or 5 days. Because of its technical complexity, brachytherapy requires an experienced radiation oncologist during the operating procedure. Brachytherapy and external beam radiation appear to be equally effective when properly administered.
- Preoperative radiation therapy - The employment of preoperative radiation therapy may allow less radical forms of surgery to be used, specifically on large tumors that otherwise may compromise limb-sparing procedures. Radiation-induced tumor shrinkage decreases the magnitude of resection needed and reduces the risk of seeding by viable tumor cells. Local fibrosis may make the resection more challenging.

**Follow-up.** General follow-up care includes surveillance studies to evaluate local recurrence and distant metastasis of malignant and intermediate tumors. The precise interval between and the duration of various follow-up studies are not well defined. In general, vigorous surveillance continues for 3-5 years after treatment. Benign tumors generally do not require such surveillance.

## Fibroma and Papilloma

Two common, tumor-like raised lesions of the oral cavity are the fibroma (Figure 26) and the papilloma (Figure 27), which result from reactive connective tissue hyperplasia caused by a chronic irritant. Most fibromas are less than 1 centimeter in diameter; are pale pink, smooth, and firm; and have a [sessile](#) or [pedunculated](#) base. Fibromas may be found on any area of the oral mucosa but are most often located on the palate, tongue, cheek, or lip. The papilloma has a soft, cauliflowerlike surface; is pink to white in color; and is generally a solitary lesion. It can be located anywhere in the mouth. Treatment involves surgical excision and removal of the source of the irritant. Recurrence is uncommon.[\[6\]](#)



**Fig 26. Fibroma**



**Fig 27. Papilloma**