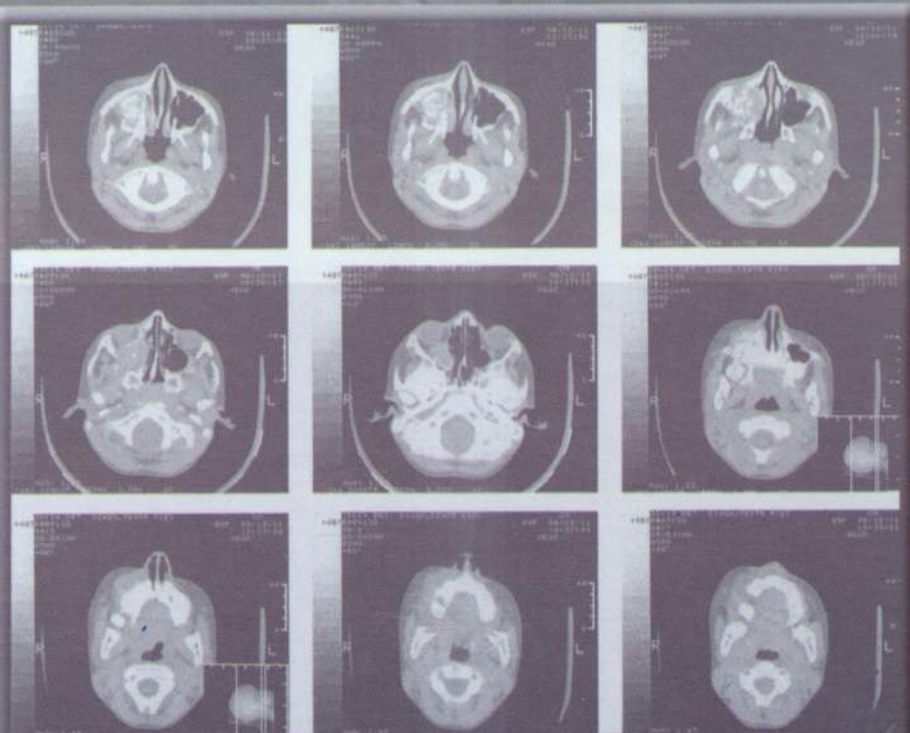


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PEDIATRIC ORAL AND MAXILLOFACIAL SURGERY

Edited by Professor L.V. Kharkov

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The textbook is the result of effective work of employees of the department of pediatric dental surgery. Based on years of experience, the authors elaborated on the etiology and pathogenesis, clinical patterns of inflammation, trauma, tumors, and congenital malformations of the maxillofacial region in children. New data on the diagnosis, differential diagnosis and treatment of these diseases were added. The textbook corresponds to the programs approved by the Ministry of Health of Ukraine.

For students of dental and pediatric departments with English-language teaching of higher medical educational institutions, interns and dentists.

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Підручник є результатом плідної праці співробітників кафедри хірургічної стоматології та щелепно-лицевої хірургії дитячого віку. Грунтуючись на багаторічному досвіді роботи, автори докладно висвітлили питання етіології та патогенезу, закономірностей клінічного перебігу запальних, травматичних, пухлинних процесів і вроджених вад розвитку щелепно-лицевої ділянки в дітей. Подано нові дані щодо діагностики, диференціальної діагностики та лікування цих захворювань. Підручник відповідає програмам, затвердженим МОЗ України, і є базовим державним.

Для студентів стоматологічного і педіатричного факультетів з англійською мовою навчання медичних закладів вищої освіти, інтернів та лікарів-стоматологів.

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TRAUMATIC INJURIES OF MAXILLOFACIAL TISSUES

DAMAGE OF THE FACIAL SOFT TISSUES

Damage of the facial soft tissues (*Trauma telarum mollium faciei*) are accompanied by an impairment of the soft tissues integrity, posttraumatic edema and their deformity. All soft tissue wounds are divided into gunshot and non-gunshot; penetrating (in the mouth, nose, orbit, maxillary sinus) or nonpenetrating, with or without the tissue defect.

Non-gunshot injuries are divided into contusions, abrasions and wounds.

There are complaints about pain in the area of the trauma, the presence of hematoma, bleeding; difficulty or inability to perform the functions.

Clinical picture. *Contusions* are closed mechanical soft tissue injuries without their integrity, impairment accompanied by a congestive hyperemia and exudate soaking tissue, as well as by the formation of hematomas. Contusions are characterized by pain in the soft tissue injuries, bruising (suffusion), and tissue edema. The latter becomes more severe, leading to intense pain and possible dysfunctions (opening of the mouth, chewing food).

Abrasions are characterized by integrity impairment of the surface layers of the skin. Their clinical features mainly manifest themselves as pain, tissue swelling, the evidence of "scarification" areas of the skin (fig. 45).

Wounds (Vulneris). According to the mechanism and nature of the traumatic agent the following kinds of wounds are distinguished: confused, puncture incised, lacerated, crushed, bites, scalped, and mixed injury. Soft tissue injuries may be associated with injuries of teeth, jaws and other organs. Combined, multiple, associated injuries can be detected.

The clinical picture is characterized by the impaired tissue integrity, its swelling, bleeding and bruising. In children there is extensive and fast growing swelling of the tissues with the formation of interstitial hematoma. Cut wound edges are smooth with linear form. Lacerated and contused wounds differ by their irregularly shaped edges, and they are most common injuries; punctures have a small orifice hole and a long wound canal; bites are more often accompanied by the soft tissue defects, irregular edges, combinations of different types of tissue damage defect or without it (figs. 46, 47).

Principles of treatment and specific actions.

1. Primary debridement surgical treatment of wounds in the maxillofacial area (may be primary early, delayed, late and secondary – for the second time). Closure wounds with defect by local tissues (plastics by Szymanowski, Limberg, flaps on the steam), Filatov stem etc.

3. Prevention of secondary deformation of the teeth and jaw in children with the use of orthodontic treatment.

FIBROUS DYSPLASIA OF THE MAXILLOFACIAL BONE

Maxillofacial bone fibrous dysplasia of mono- and polyostotic form (*Dysplasia fibrosa faciei, mono- et poly-ossali*) is a tumor-like formation, marked by the tissue with various degrees of incomplete bone osteogenesis formation of a fibrous nature. It is more common in adolescence. Polyostotic and monoostotic forms are differentiated. The most common site of affection is the premolars area, the body and angles of the upper jaw.

The complaints. Either from a child or his parents, and also complaints from adults about a slight pain in the jaw and slight deformation of the tissue at the onset of the disease. If the disease progresses the jaw deformation grows and the pain occurs more frequently at night.

Clinical picture. The monoostotic form is characterized by the lack of pain in the early stages, followed by the appearance of painful deformed jaw area with a smooth surface, covered by intact mucosa. The teeth are fixed. Polyostotic form affects several bones of the face or the bones of the skeleton (hip, shoulder). This form may be associated with different types of congenital abnormalities (aortic stenosis, optic atrophy), McCune-Albright syndrome.

Cherubism (a form of fibrous dysplasia) is a symmetrical increase of bone tissue in the branches and the angles of the mandible. The most intensive development of the disease is noted at the age of 11–16. The X-ray of the thin border focal dysplasia form areas of clear interval of the osteal tissue of round and oval shape with sclerosis then border at the periphery; the uneven thinning of the bone cortical layer is noted with the periosteal layers being absent. The diffuse form is characterized by the lack of clear boundaries with healthy bone. Lucid interval areas may be multiple, separated by thick osteal septa. Massive periosteal strata (layers) are detected (figs. 89, 90).

Cherubism is marked by multiple cysts looking like lucid intervals of different shape and size. Jaw bone is thinned, but it is not broken off. With age, the number of "lucid intervals" reduces, their boundaries are becoming unclear. Permanent teeth at the site of lesion are often impacted.

The neoplasm removal reveals the bone of low density resembling "sugar" bone.

Principles of treatment.

1. "Sugar" bone curettage with a subsequent leveling of the jaw deformation surface.

2. Drug therapy (antihistaminic preparations, nonnarcotic analgetics, and vitamins). Locally: antiseptics to treat or line the guy-sutures a mucous membrane.

Fig. 43. Radiography in the position of the patient's occlusion suffering from calculous submaxillitis. Two roentgen-contrast neoplasms are defined within the ductal foramen (Vartonov) under mandibular salivary gland

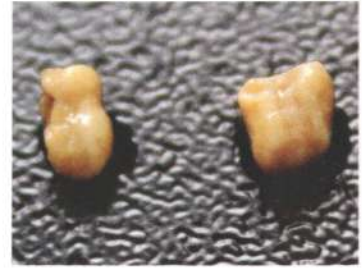


Fig. 44. Calculi to have been removed from the duct of submandibular salivary gland of the same patient



Fig. 45. Abrasion of the facial left half



a



b

Fig. 46. Scalped nasal and left infraorbital area wound (*a*); after primary debridement has been performed (*b*)



a



b

Fig. 47. Contused wound of the upper lip (perforating), nose and bridge of the nose from the right (*a*); after primary debridement (*b*)

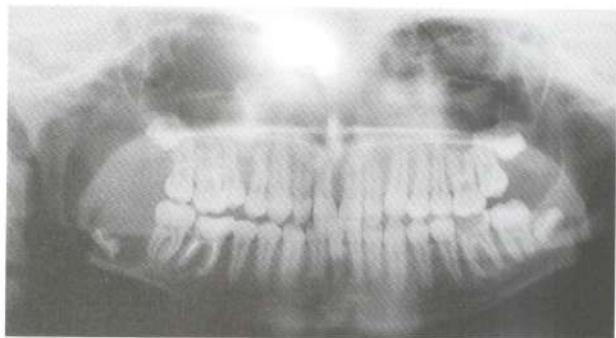


Fig. 84. Orthopantomogram of a child with follicular cyst of the right angle and mandible branch



Fig. 85. Radiography of the mandible half of a child with radicular dental contained cyst originated from 85 tooth



Fig. 86. Giant cellular epulis within the 35, 36 teeth



Fig. 87. Osteoblastoclastoma cystic form: *a* — orthopantomogram; *b* — alveolar process view (alveolar process deformity area, covered with mucous membrane that has changes in color — red); *c* — macrospecimen of the neoplasm removed; *d* — wound view after osteoblastoclastoma removal

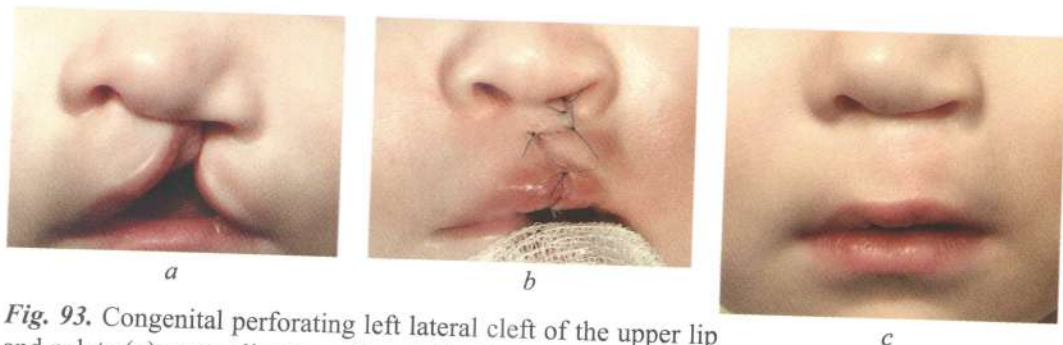


Fig. 93. Congenital perforating left lateral cleft of the upper lip and palate (a); upper lip view after cheilorhinoplasty (b); view of the lip a year after an operation (c)

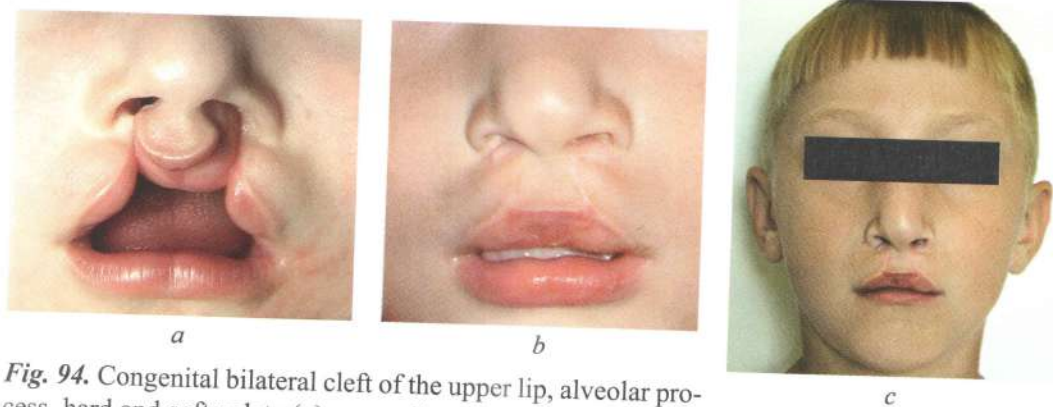


Fig. 94. Congenital bilateral cleft of the upper lip, alveolar process, hard and soft palate (a); upper lip view one year after cheilorhinoplasty (b); a 9-year-old child (c)

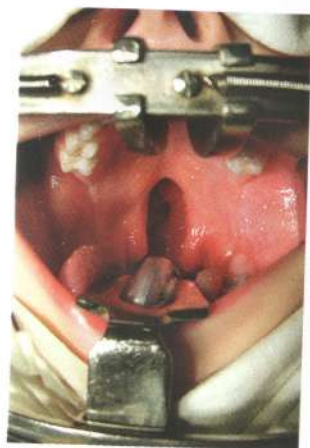


Fig. 95. Isolated cleft of the soft and hard third posterior part palate



Fig. 96. Congenital bilateral cleft of the alveolar process, hard and soft palate, intergnathic bone protrusion



Fig. 97. Child's feeding through a tube with bilateral cleft of the upper lip, soft and hard palate

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