

## NECROSIS OF MAXILLARY BONES.\*

---

BY A. E. WEBSTER, L.D.S., D.D.S., M.D., TORONTO.

---

*Definition.*—The older writers on surgical pathology define necrosis as death of bone tissue *en masse*, while the more recent writers define necrosis as a condition of local death of single cells or groups of cells, whether of bone or of soft parts. This would seem to be the proper definition, as caries of bone is only applied to a specific degeneration, which will be dealt with later. Necrosis is a condition, not a disease, and may be brought about by various causes. Necrosis is two and one-half times more frequent in the lower jaw than in the upper. This difference in frequency is in all probability due to the greater vascularity of the upper jaw as compared with the lower, and in a measure to its more protected position.

*Etiology.*—The causes of necrosis are many. The general or remote causes are: any condition that lowers the vitality or reduces the resistance of the organism, such as pyemia, septicemia, tuberculosis, syphilis, typhoid, scorbutus, mercury and phosphorus poisoning, measles and small-pox; scarlet fever seems to be a very frequent cause. At this time we shall discuss only those local causes of necrosis that are most frequently met with in an ordinary dental practice. Traumatism, fracture of the jaw or blows, rough or violent extracting, may cause the death of quite large portions of the alveolus. In some cases these pieces of dead bone continue to come away from the gums for months after the accident. Accidental peeling off the periosteum from the bone by instruments that slip, has caused large pieces of bone to die.

*Chemicals.*—Applications of arsenic to devitalize pulps often cause necrosis when applied to teeth with very large apical foramina, as exist sometimes in deciduous teeth and permanent teeth not yet fully developed, or where the drug is allowed to get out of the cavity and come in contact with the gums. Chloride of zinc may produce the same effect. Hypodermic injections of drugs to relieve pain in extracting often cause a necrosis. Several such cases have come under the notice of the authorities of the college during the past few years. In the majority of these cases it would seem that the necrosis is due to the toxic effect of the drug injected, rather than to any infection or violence to the tissue in the operation. Freezing mixtures, such as ethyl-chloride, have caused a necrosis when applied to the gums to relieve the pain of extracting.

*Infection.*—Local pyogenic infection from diseased and dead

---

\* Read before Ontario Dental Society.