



Short Communication

Necrotic lesions of the oral cavity

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ABSTRACT

Necrosis refers to a spectrum of morphologic changes that follow cell death in living tissue, largely resulting from the progressive degradative action of enzymes on the lethally injured cell (cells placed immediately in fixative are dead but not necrotic).

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1. Necrosis

Necrosis refers to a spectrum of morphologic changes that follow cell death in living tissue, largely resulting from the progressive degradative action of enzymes on the lethally injured cell (cells placed immediately in fixative are dead but not necrotic).¹

Necrosis is defined as the focal death along with degradation of tissue by hydrolytic enzymes liberated by the cells.²

As commonly used, necrosis is the gross and histologic correlate of cell death occurring in the setting of irreversible exogenous injury. Necrotic cells are unable to maintain membrane integrity and their contents often leak out.³ This may elicit inflammation in the surrounding tissue. The following article aims at listing necrotic lesions of the oral cavity.

2. Types of Necrosis¹

Once the necrotic cells have undergone the early alterations described, the mass of necrotic cells may have several morphologic patterns.

When denaturation is the primary pattern, coagulative necrosis develops. In the instance of dominant enzyme digestion, the result is liquefactive necrosis; in special circumstances, caseous necrosis and fat necrosis may occur.

Coagulative necrosis implies preservation of the basic outline of the coagulated cell for a span of at least some days. The affected tissues exhibit a firm texture.

Liquefactive necrosis is characteristic of focal bacterial or, occasionally, fungal infections, because microbes stimulate the accumulation of inflammatory cells.

Caseous necrosis, a distinctive form of coagulative necrosis, is encountered most often in foci of tuberculous infection. The term caseous is derived from the cheesy white gross appearance of the area of necrosis. Unlike coagulative necrosis, the tissue architecture is completely obliterated.

Fat necrosis is a term that is well fixed in medical parlance but does not in reality denote a specific pattern of necrosis. Rather, it is descriptive of focal areas of fat destruction, typically occurring as a result of release of activated pancreatic lipases into the substance of the pancreas and the peritoneal cavity.

Fibrinoid necrosis or fibrinoid degeneration is characterized by deposition of fibrin-like material which has the staining properties of fibrin.

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3. Anesthetic Necrosis

Administration of a local anesthetic agent can, on rare occasions, be followed by ulceration and necrosis at the site of injection. This necrosis is thought to result from

localized ischemia, although the exact cause is unknown and may vary from case to case.

4. Oral Cavity and Necrotic Lesions

Based on etiology, pathogenesis of Oral diseases, the following lesions are listed under Necrotic Lesions.

Macroglossia
Tooth discolouration
Periapical granuloma
Periapical abscess
Osteoradionecrosis
Osteomyelitis
Necrotizing ulcerative gingivitis (Vincent's infection; trench mouth)
NUG-like necrosis may develop in areas of persistent pericoronitis.
Diphtheria
Tuberculosis
Leprosy
Noma. Extensive blackish orofacial necrosis of the right cheek in an immunocompromised patient.
Cat-scratch disease
Zygomycosis
Aspergillosis
Herpes simplex virus (HSV) infection
Herpes zoster virus (HZV) infection
Herpangina and hand-foot-and-mouth disease
Rubeola (Measles)
HIV-associated necrotizing stomatitis.
Kaposi's sarcoma (KS).
Traumatic Ulcerations
Electrical burn. Yellow charred area of necrosis along the oral commissure.
Chemotherapy-related epithelial necrosis.
Behcet's SYNDROME (Behcet's DISEASE)
Wegener's granulomatosis
Oral squamous cell carcinoma
Subacute necrotizing sialadenitis

Sialadenosis (Ischemic)
Mucoepidermoid carcinoma
Adenoid cystic carcinoma.
Polycythemia vera
Langerhans cell histiocytosis.
Angiocentric T-cell lymphoma
Simple bone cyst (traumatic bone cyst; hemorrhagic bone cyst)
Cemento-osseous dysplasia
Ewing's sarcoma

5. Conclusion

Although it's difficult to differentiate necrosis in each lesion in Oral Cavity, future research should aim at classifying these lesions and treating the same based on the type of necrosis.

6. Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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