

Lymphatic architecture of the oral region –beneath the buccal mucosa–

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Abstract

It is hardly searched about detailed lymphatic architecture in various organs. As a result, the lymphatic vessel in microcirculation field is only recognized as a metastasis route of tumor. Especially, the detection of lymphatic vessel to depend on enzyme histochemistry and immunohistochemistry is very difficult in the oral region, because the oral cavity is enclosed by hard tissues. We have already reported the lymphatic architectures beneath the mucosal epithelium of the tongue dorsum and the inferior surface of tongue using the serial section 3D reconstruction method by computer graphic. From our reports, we have recognized the differences in lymphatic architecture between specialized oral mucosa and lining mucosa of the tongue. In this paper, we report the lymphatic architecture beneath the buccal mucosa which is classified the lining mucosa like as the inferior surface of tongue using enzyme histochemical staining serial section 3D reconstruction method by computer graphic. We suggested in this paper that the lymphatic architecture beneath the buccal mucosa is useful for the drug delivery route. The buccal and sublingual tablet is thought only the absorption from the blood vessels. We really believe that the buccal tablet is very useful drug delivery system from a viewpoint of the absorption of the lymphatic vessels. The platinum was very difficult to detect by PIXE, because the measurement data was not stabilized. In future, we will try to develop the sample treatment method and then to measure again the platinum.