ULTRASTRUCTURAL LOCALIZATION OF ELASTIN-LIKE IMMUNOREACTIVITY IN THE EXTRACELLULAR MATRIX AROUND HUMAN SMALL LYMPHATIC VESSELS

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ABSTRACT

The distribution of elastin-like immunoreactivity around small lymphatic vessels was investigated in three different human tissues (skin, heart and dental pulp) using high resolution immunocytochemistry. Quantitative assessment of the immunogold reaction was performed with an image analysis system. Intense and moderate elastin-immunoreactivity was detected in the extracellular matrix around small lymphatic vessels of the skin and heart, respectively. By contrast, absence of immunostaining was observed around lymphatic vessels in the dental pulp. Although the staining was mostly detectable on the non-fibrillar amorphous component of the extracellular matrix, some microfibrils were also immunostained in close proximity to the lymphatic vessel wall. These findings support the concept that small lymphatic vessels may be heterogeneous with respect to the composition of the extracellular matrix around their wall. The observation that it is possible to observe small lymphatic vessels displaying low or no elastin-immunoreactivity in the adjoining matrix militates against the hypothesis that elastic fibers play a pivotal role in the mechanisms that regulate the function of small lymphatic vessels.