LYMPHATIC VESSELS IN THE COLONIC MUCOSA IN ULCERATIVE COLITIS

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ABSTRACT

In the normal colonic mucosa, lymphatics are found only in a narrow band associated with the muscularis mucosae and are absent from the rest of the mucosa. This study examined whether this arrangement of lymphatics is also valid in ulcerative colitis. Histological sections of colon from 15 long-standing cases were investigated with antibodies against CD 34 (negative for lymphatics; positive for blood vessel endothelium) and, in selected cases, podoplanin (positive for lymphatic endothelium; negative for blood vessel endothelium). Whereas inflammation of the mucosa was not associated with changes in lymphatics, an increase in intramucosal lymphatics was seen when the pathological changes included widening of the muscularis mucosae or penetration of the mucosa by muscle fibers, filiform changes in the mucosa, and hyperplasia of the mucosa-associated lymphoid tissue (MALT). In specimens with epithelial dysplasia, an association between the dysplastic epithelium and ectatic and quantitatively increased lymphatics was observed. With superimposed carcinoma, no relationship between the malignant tumor and lymphatics was identifiable. Nevertheless, pre-existing lymphatics in the muscularis mucosae were involved in lymphatic tumor spread. The immunohistochemical findings demonstrated that lymphatics occurred in all areas of the mucosa in ulcerative colitis (or, in effect, at sites which were not normally found under physiological conditions) and in regions that favored lymphatic tumor dissemination. Whether these lymphatics were actually involved in metastasis remains to be defined.