ABSTRACT

Invasion and metastases are the main causes of death from cancer, and prognosis is best correlated with invasion of malignant cells into initial lymphatics and dissemination to regional lymph nodes. Using both light and transmission electron microscopy, we examined human gastric and colonic cancers and their relation to initial lymphatics. Invasion of malignant tumor cells into the initial lymphatics was characterized by interdigitating and overlapping endothelium giving way to open junctions as lymphatic endothelial cells were apparently dissolved and destroyed. Cytoplasmic vesicles, mitochondria, and rough endoplasmic reticulum were qualitatively increased as demonstrated by image analysis.