Loss of Vimentin immunoreactivity in the Squamous Metaplastic Epithelium of the Benign and Malignant Glandular Epithelium of the Endometrium

Hanna G. Kaspar, MD
Geisinger Medical Laboratories, Wilkes Barre, PA

Squamous metaplasia in endometrioid adenocarcinoma of the endometrium may be interpreted as solid growth pattern of the tumor resulting in upgrading the FIGO grade of the tumor. Conversely, a solid growth pattern of the endometrioid tumor may be construed as squamous metaplasia resulting in downgrading of the FIGO grade. The purpose of this study is to evaluate vimentin immunoreactivity of the squamous metaplastic epithelium in the benign glandular epithelium of the endometrium and in the endometrium with endometrioid adenocarcinoma. For the study, 71 endometrial biopsies and 62 surgical specimens in which vimentin staining was previously performed were reviewed. There were 45 biopsies and 52 surgical specimens with the diagnosis of endometrioid adenocarcinoma. A total of 69 biopsies and 58 surgical specimens displaying vimentin reactivity of the bulk of epithelium were included. Of all biopsies, 58 cases displayed foci of loss of vimentin reactivity in various proportions of the epithelium, predominantly in areas with unequivocal squamous metaplasia on light microscopic examination. Similarly, the surgical specimens displayed foci of loss of reactivity in 54 of 58 cases. Loss of immunoreactivity with vimentin frequently occurs in squamous metaplastic epithelium in benign and malignant endometrium. The use of vimentin immunostaining may be helpful as an objective tool in assessing solid growth patterns in endometrioid adenocarcinoma for a reproducible FIGO grade.

Category:
Surgical Pathology