

## Endometriosis and its related lesions

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This lecture reviews recent advance in our understanding of histopathology of endometriosis with special reference of atypical epithelial features (atypical endometriosis), its relationship to neoplasm and epithelial and stromal metaplasia. The ovary is the most common site for development of malignancy in endometriosis. Atypical glandular changes were rarely observed in ovarian endometriosis without ovarian cancer but they were often observed associated with ovarian cancers, predominantly clear cell and endometrioid carcinomas. The diagnosis of atypical endometriosis was based on the presence of epithelial cells of features previously enumerated by Czernobilsky and Morris (1), and LaGrenade and Silverberg (2). These features include large hyperchromatic or pale nuclei with moderate to marked pleomorphism; increased nuclear to cytoplasmic ratio; and cellular crowding, stratification or tufting. Three or more of these criteria must be present. Atypical endometriosis can be observed in contiguity with malignant epithelial tumors. It is considered that atypical endometriosis possesses a precancerous potential (3). Carcinoma may arise in residual foci of atypical endometriosis at the same or other sites. Close screening of cellular atypia or hyperplasia in ovarian endometriosis and careful long-term follow-up of patients with atypical endometriosis is required.

Epithelial metaplastic changes such as ciliated cell, eosinophilic cell metaplasia and smooth muscle cell metaplasia are not rare events in ovarian endometriosis and the features may lead misdiagnoses.(4)

## References

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2. LaGrenade A, Silverberg SG. Ovarian tumors associated with atypical endometriosis. *Hum Pathol.* 1988; 19:1080-4.
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4. Fukunaga M, Ushigome S. Epithelial metaplastic changes in ovarian endometriosis. *Mod Pathol.* 1998; 11:784-8.