

Correlation of Histopathological Findings of Endometrium Biopsy with Clinical Findings and Serum b-hCG Level in Ectopic Pregnancy

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Aim. To correlate histological patterns of endometrium with clinical symptoms and serum b-hCG concentration in an ectopic pregnancy.

Method. Forty seven patients were subjected to curettage when an incomplete abortion or blighted ovum were suspected, but the final diagnosis was ectopic pregnancy. Endometrial tissue was routinely processed, paraffin embedded, stained with hematoxylin-eosin, and analyzed histologically. Histopathological findings were correlated with the duration of the vaginal bleeding or spotting, and serum beta hCG concentration at the time of biopsy (in patients who had b-hCG assessed more than once).

Results. Decidual endometrium was found in 31 (65.9%), secretory pattern in 12 (25.7%), and proliferative pattern in 4 (8.5%) samples. Arias-Stella change in endometrial glandular epithelium was observed in 31.9% of all the samples (48.4% of decidual endometria). All samples with a proliferative pattern were found in patients who had vaginal bleeding/spotting for more than 15 days. In the group of patients with vaginal bleeding/spotting lasting for more than 15 days, the difference in the number of findings of proliferative endometrium (100%), and both decidual (33.3%) and secretory (8.3%) pattern was significant ($p < 0.05$ and $p < 0.005$, respectively). All samples with proliferative pattern were related to patients with a declining serum b-hCG concentrations at the time of biopsy. In the group of patients with a declining b-hCG concentration at the time of biopsy, a proliferative endometrium (100%) was found significantly more often than a decidual (19.4%) or secretory pattern (16.6%) ($p < 0.005$).

Conclusion. Endometrial biopsy findings mainly depend on the viability of the embryo or fetus, and, after its demise, on the duration of endometrial shedding and b-hCG concentration. Therefore, endometrial biopsy in the ectopic pregnancy can reveal a variety of histological patterns. Some of them may be highly suggestive of the ectopic pregnancy, but the biopsy findings are never diagnostic of this condition.

Key words: *biopsy; endometrium; pregnancy, ectopic*

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