Poster 6: A cohort study assessing the impact of glucagon like-peptide 1 receptor agonist and progestin therapy on endometrial intraepithelial neoplasia and low-grade endometrial cancer

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Topic
Endometrial

Objectives
To study the synergistic effects of glucagon-like peptide-1 receptor agonists (GLP-1 RA) and progestins on patients diagnosed with endometrial intraepithelial neoplasia (EIN) and low-grade endometrial cancer (EMCA).

Methods
This is a single-institution retrospective cohort study of patients with biopsy-proven EIN or grade 1 EMCA treated between January 1, 2022 and December 31, 2025. Demographic and clinical data were abstracted from the electronic medical record. Descriptive statistics were used to summarize patient characteristics. Comparative analyses were performed using two-sample t-tests with equal variance for continuous variables and Pearson chi-squared tests for categorical variables.

Results
A total of 160 patients with EIN or grade 1 EMCA were included during the study period, of whom 116 (72.5%) had EIN and 44 (27.5%) had EMCA. In the EIN group 72 (62.1%) patients cleared the disease, 31 (26.7) had persistent disease, and 13 (11.2%) had progressive disease. Patients with EIN who are on progestin alone vs. combination progestin and GLP-1 RA had similar proportion for clearance [44(68.8%) vs 21(63.6%), p=0.07]. Likewise, the proportion for persistent [12(18.8% vs 8 (24.2%)] or progressive [8 (12.5%) vs. 4 (12.1%)] were comparable. Among patients with EMCA, 13 (29.6%) cleared the disease, 29 (65.9%) had persistent disease, and 2 (4.5%) had progressive disease. EMCA clearance was more often achieved with dual progestin and GLP-1 RA therapy than progestin alone [8 (57.1%) v. 4 (30.8%) p=0.03] and reached statistical significance. Treatment with progestin alone resulted in 8 (61.5%) persistent and 1 (7.7%) progressed, dual progestin and GLP-1 RA therapy showed 6 (42.9%) persistent and no patient with progressed endometrial cancer.

Conclusions
GLP-1 RA in combination with progestin therapy appears to be non-inferior to progestin therapy alone in clearing disease and may have greater potential in specifically EMCA cohorts.