

Epidemiology of Endometrial Carcinoma Among Women with Postmenopausal Bleeding

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Abstract

Background: Postmenopausal bleeding (PMB) warrants prompt evaluation because it may indicate endometrial carcinoma and may also reflect premalignant endometrial disease. International estimates vary by geography and referral setting, while Albanian evidence is limited and has yielded markedly different hospital-based estimates.

Objective: To estimate the frequency of histologically confirmed endometrial carcinoma among women presenting with PMB, describe the histopathological spectrum, explore clinical and ultrasound characteristics associated with carcinoma, and reassess earlier Albanian hospital estimates using prospective consecutive ascertainment.

Methods: This prospective hospital-based observational cohort included all eligible consecutive women presenting with PMB at Queen Geraldine Obstetric–Gynecologic Hospital, Tirana, Albania, from January 2024 through December 2025. Clinical and transvaginal ultrasound variables were recorded before histopathological classification. The final cohort comprised 221 women with complete outcome data. Carcinoma frequency and histopathological proportions were reported with 95% confidence intervals (CIs). Exploratory between-group comparisons used Welch’s t test, Mann–Whitney U test, or Fisher’s exact test as appropriate.

Results: Endometrial carcinoma was diagnosed

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in 24/221 women (10.9%; 95% CI 7.4–15.6). Atypical hyperplasia/endometrial intraepithelial neoplasia (EIN) occurred in 22.2% (95% CI 17.2–28.1) and hyperplasia without atypia in 28.5% (95% CI 23.0–34.8). Women with carcinoma were older, had more years since menopause, higher BMI, lower parity, longer bleeding duration, greater endometrial thickness, lower Doppler resistance and pulsatility indices, and higher vascularisation scores (all $p \leq 0.020$). Heterogeneous endometrium (OR 11.98, 95% CI 3.92–36.59), an intrauterine mass (OR 7.85, 95% CI 3.14–19.64), and high vascularisation (OR 23.97, 95% CI 7.70–74.60) were strongly associated with carcinoma.

Conclusions: Approximately one in nine women evaluated for PMB in this tertiary cohort had endometrial carcinoma, a frequency substantially lower than a previous 2018 Albanian hospital estimate and broadly consistent with international pooled evidence. The high burden of atypical hyperplasia/EIN indicates that PMB pathways must address both invasive malignancy and clinically important precursor lesions.

Keywords: Postmenopausal bleeding; Endometrial carcinoma; Endometrial intraepithelial neoplasia; Endometrial hyperplasia; Histopathology; Albania