VARIABILITY OF ENDOMETRIAL THICKNESS DURING THE OVULATORY PERIOD IN THE MAIN GROUP OF AN INFERTILITY STUDY

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Background. Mean endometrial thickness provides a concise summary of ultrasound findings but may conceal differences between individual observations. Describing the distribution can help identify the measurements that predominate and guide subsequent investigation of clinical correlates. Standardized sonographic terminology supports consistent reporting [1]. Associations with reproductive outcomes have been examined in IVF, embryo-transfer and stimulated IUI settings, which differ from the present descriptive analysis [2–4].

Aim. To describe the distribution of ovulatory-period endometrial thickness in the main group of an infertility study and assess the contribution of frequency analysis to its quantitative description.

Materials and Methods. The analysis used study material from the Gynecology Department of the Fergana Branch of the Republican Specialized Scientific and Practical Medical Center for Maternal and Child Health, Uzbekistan. Forty-three ultrasound measurements recorded in millimetres during the ovulatory period were analysed descriptively. Each value was treated as a separate observation. The mean, standard deviation, median, quartiles, range and individual value frequencies were calculated. Exploratory categories were defined after inspection of the data: <7 mm, 7 to <8 mm, 8–10 mm inclusive, and >10 mm. These categories were used for description rather than as validated diagnostic thresholds. A 95% Wilson confidence interval was calculated for the proportion of measurements <7 mm.

Results. Mean endometrial thickness was 4.95±2.20 mm (mean±SD), and the median was 4.0 mm [interquartile range 3.0–6.0]. Values ranged from 2 to 12 mm. The most frequent measurement was 4 mm, observed in 10 cases (23.3%), followed by 3 mm in nine (20.9%) and 5 mm in eight (18.6%). Together, measurements of 3–5 mm accounted for 27 of 43 observations (62.8%). Thickness was <7 mm in 33 observations (76.7%; 95% CI 62.3–86.8%), 7 to <8 mm in five (11.6%), 8–10 mm in four (9.3%), and >10 mm in one (2.3%). Changing the definition from <7 mm to ≤7 mm increased the proportion to 38 of 43 observations (88.4%). This illustrates the importance of specifying the exact category boundary.

Conclusion. Endometrial thickness varied within the main group, with measurements of 3–5 mm predominating. Frequency analysis supplemented the mean and demonstrated that category proportions depend on the chosen boundary. These findings do not establish histological abnormalities, impaired receptivity or reproductive prognosis. Interpretation requires clinical information and, for prognostic assessment, recorded reproductive outcomes.

Study relationship. This abstract describes the same main-group dataset as the comparative ultrasound manuscript; it represents a complementary analysis, not an independent cohort.

References

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