

Time Trends in Ovarian Pregnancy: 55 Years’ Experience from a Single Medical Center

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Objectives

The current study aimed to evaluate time trends, clinical presentation, surgical management, and postoperative outcomes of ovarian pregnancies over five decades in a single tertiary care center.

Methods

A retrospective review was conducted of 59 women with primary ovarian pregnancy treated between 1971 and 2025, categorized into four periods: 1971–1989 (n=20), 1990–2001 (n=19), 2002–2013 (n=7), and 2014–2025 (n=13). In all cases the pathology examination confirmed ovarian pregnancy.

Conclusions

Despite advances in diagnosis of ectopic pregnancies by ultrasound and serum β-hCG analysis, preoperative diagnosis of ovarian pregnancy remains challenging, underscoring the continued importance of clinical vigilance. Over five decades, earlier surgical intervention via laparoscopy has led to lower rates of hemodynamic instability, hemoperitoneum, and blood transfusions, resulting in shorter hospitalization.

Results

Hemodynamic shock at admission differed significantly across the four periods (p = 0.003). Shock was observed in 30% of patients in Period 1 (6/20), 21% in Period 2 (4/19), 71.4% in Period 3 (5/7), and 7.7% in Period 4 (1/13). Intrauterine device (IUD) use declined from 90% to 15.4% (p = 0.0001). Preoperative ultrasound diagnosis remained rare, occurring in only 2 of 13 cases (15.4%) in the last period (4). Laparoscopic management replaced laparotomy after 1990 (p < 0.001). Admission hemoglobin increased (p = 0.01), estimated blood loss decreased (p = 0.02), transfusions were no longer required (p < 0.001), and postoperative hospitalization shortened from 4.06 ± 1.4 to 1.38 ± 0.55 days (p < 0.001). No maternal mortality occurred in any period.

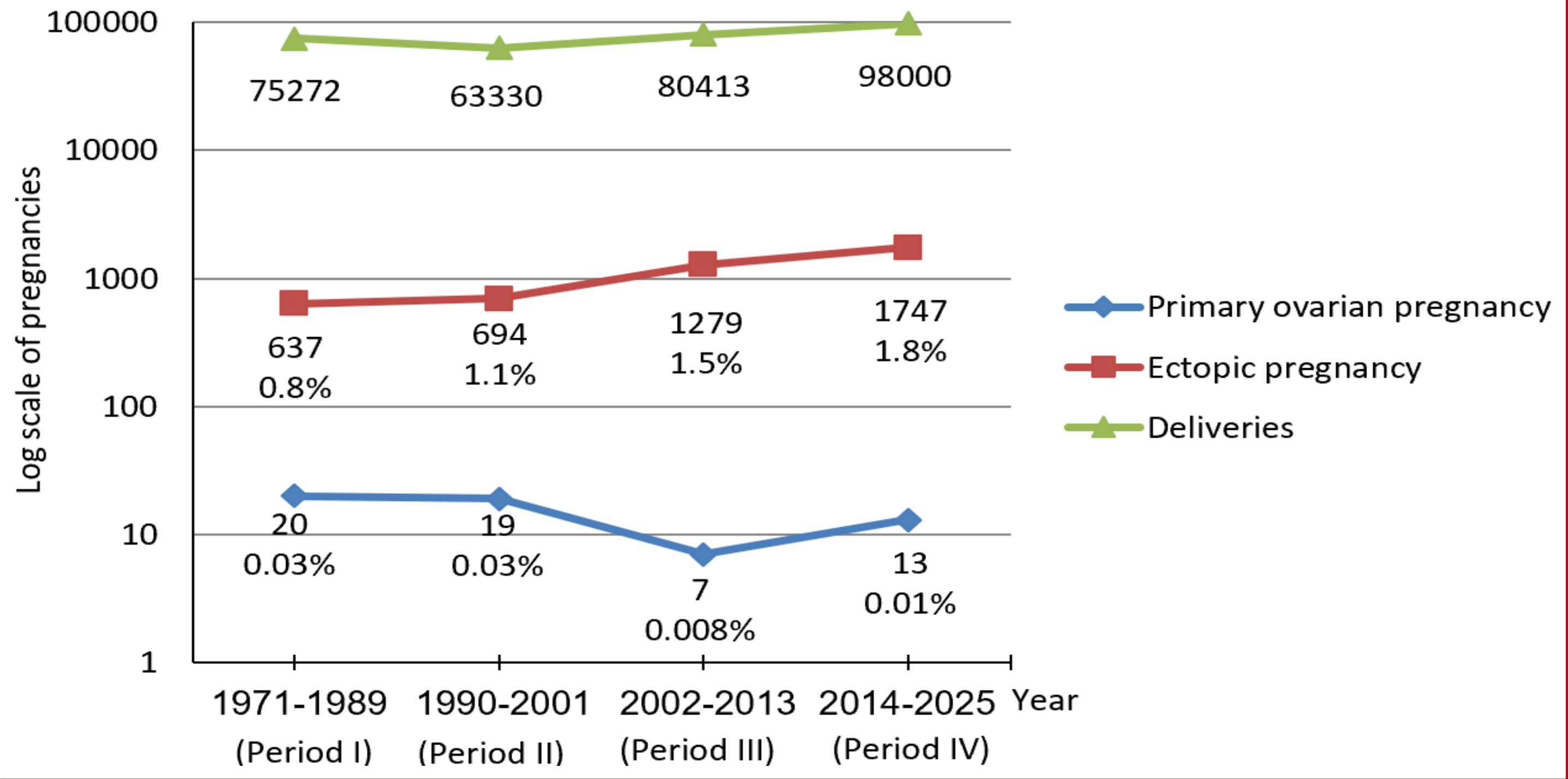


Figure 1. Time trends in ovarian pregnancy over four periods.

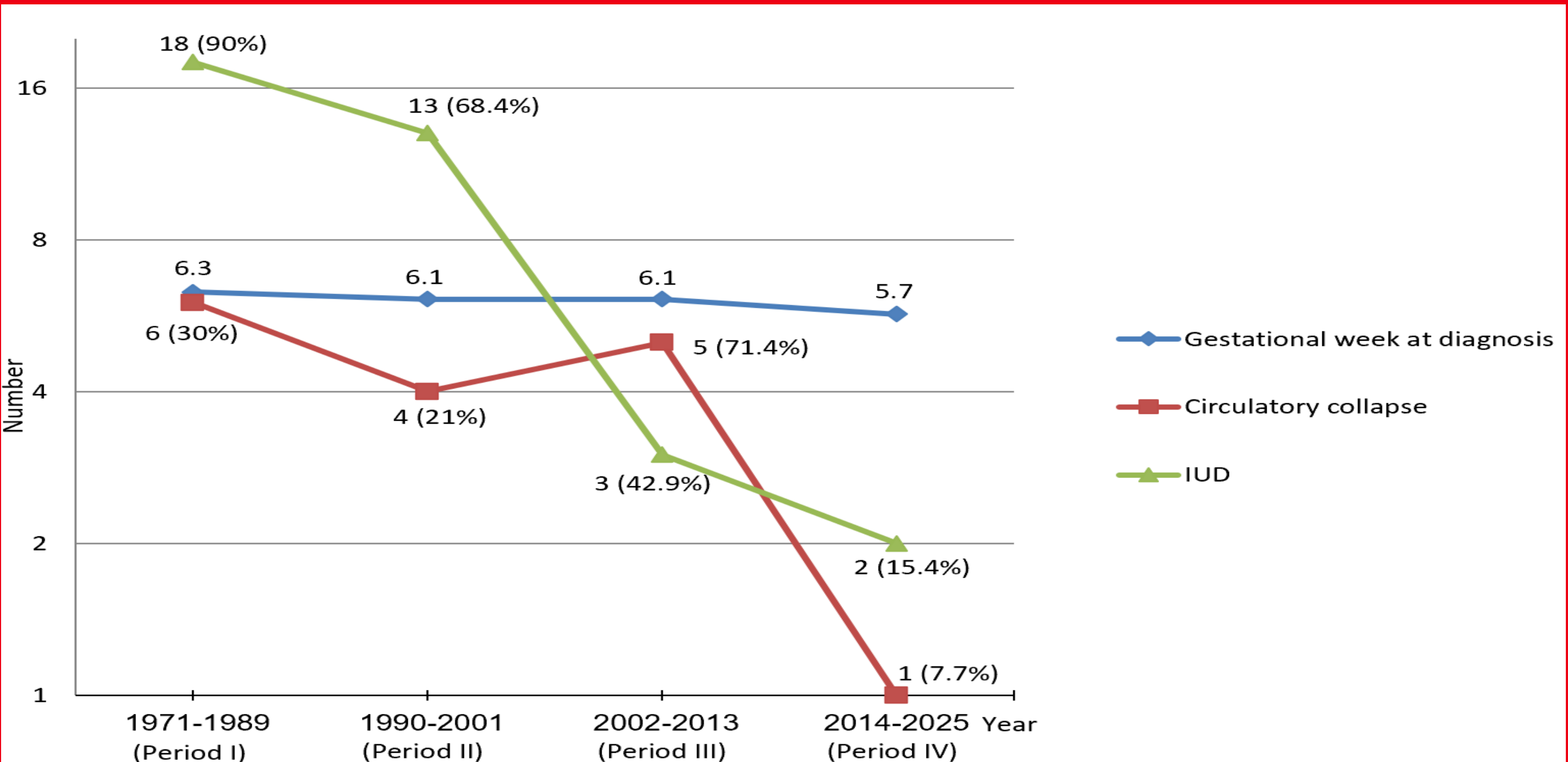


Figure 2. Trends in IUD use, circulatory collapse, and gestational age at diagnosis of ovarian pregnancy across four periods.

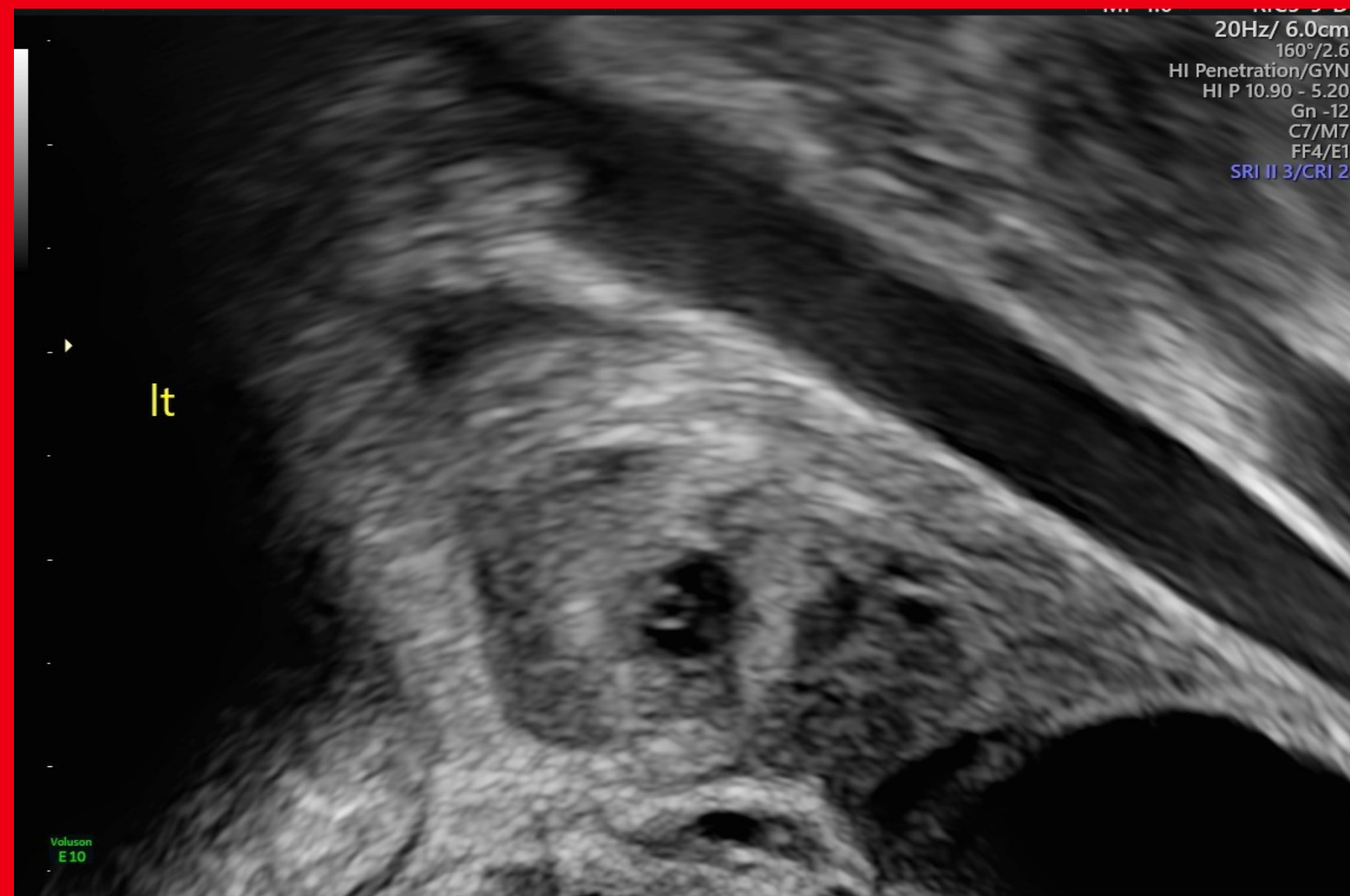


Figure 3. Grayscale transvaginal ultrasound image of an ovarian pregnancy, demonstrating the gestational sac and yolk sac within the ovary.