

The Daphne phenomenon: free-floating follicle, a paradigm shift in folliculogenesis, a case report

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OBJECTIVES

To describe an unusual ultrasonographic finding of a free-floating follicular structure and discuss its possible implications for folliculogenesis and ovulation.

METHODS

A 41-year-old G1P1 patient presented for routine gynecological examination on cycle day 14. She was asymptomatic, with no significant medical history or prior infertility. Transvaginal ultrasound showed a trilaminar endometrium and an unremarkable left adnexa. The right adnexa demonstrated approximately 20 × 20 mm periovarian fluid and a 15 × 15 mm free-floating follicular structure measuring 15 × 15 mm, continuous with the right ovarian parenchyma. Color Doppler showed no vascular flow within the pedicle. The patient’s hormonal profile was within the normal reference range.

KEY ULTRASOUND OBSERVATION

The follicular structure appeared free-floating adjacent to the ovary, with periovarian fluid and absent Doppler flow in the apparent pedicle. The finding is notable because the structure remained morphologically related to the ovary while appearing detached from its expected localized position.

INTERPRETATION

The absence of vascular flow in the apparent pedicle is notable. The observation challenges the assumption that follicular rupture and subsequent luteal development are necessarily confined to a strictly localized ovarian event.

RESULTS

On follow-up ultrasonography in the subsequent cycle, the previously identified free-floating follicle was no longer visualized. Instead, a characteristic “ring of fire” appearance was observed in the same ovary.

CONCLUSION

The identification of a free-floating follicle challenges the conventional paradigm of ovulation as a strictly localized exocrine event. Such findings may hold clinical relevance in ovulatory dysfunction, particularly among patients with infertility or impaired corpus luteum development. Further investigation is warranted to elucidate the underlying mechanisms and potential implications of this phenomenon.



Figure 1. Free-floating follicular structure adjacent to the right ovary, with approximately 20 × 20 mm periovarian fluid. Color Doppler showed no vascular flow in the apparent pedicle.

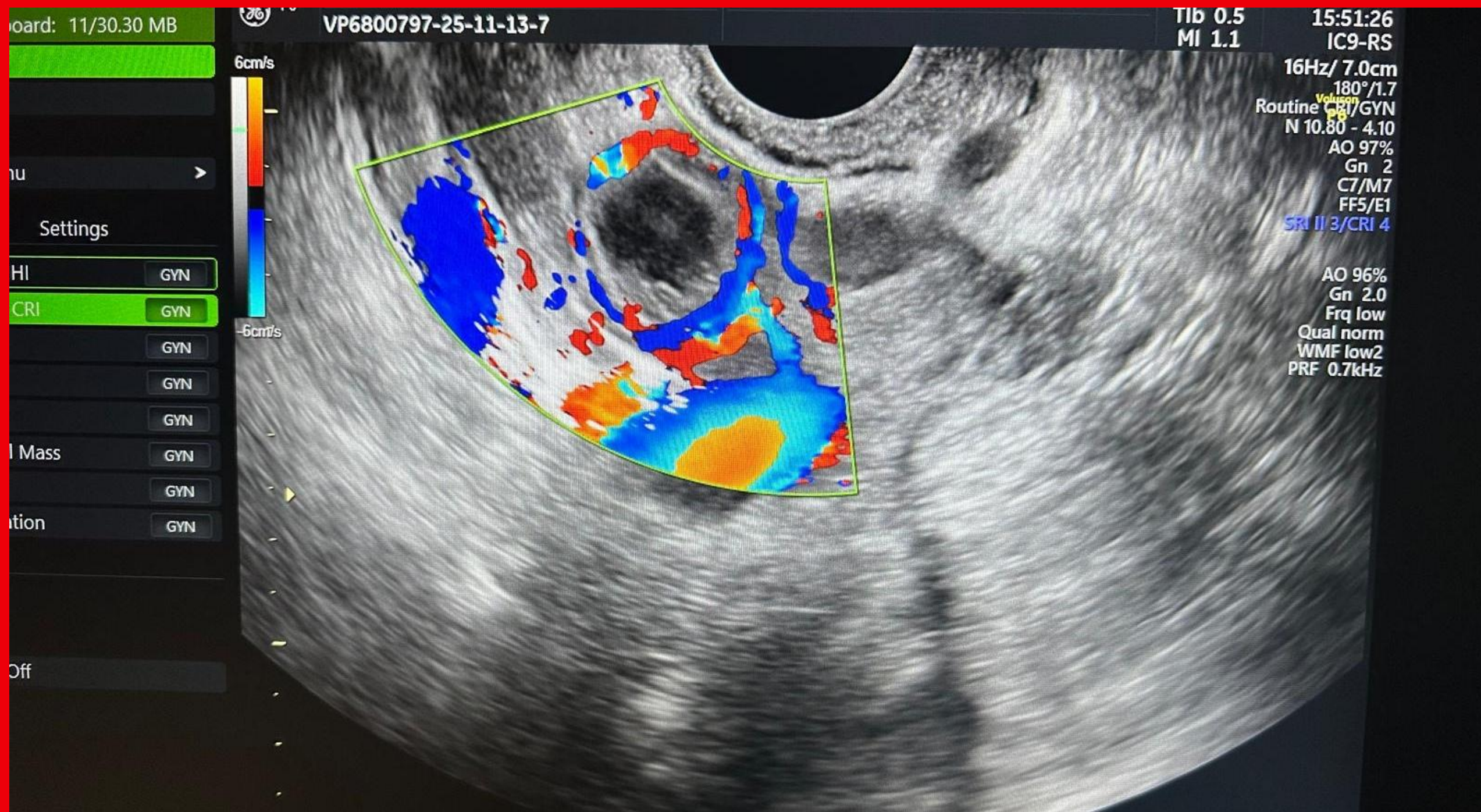


Figure 2. Follow-up ultrasound in the subsequent cycle showing a characteristic “ring of fire” appearance.