LETTER TO THE EDITOR



Re: Association between kissing and retropositioned ovaries and severity of endometriosis: MR imaging evaluation

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To the Editor,

It was a pleasure to read the article by Williams et al., who presented a well-designed study demonstrating the diagnostic value of MRI for advanced stages of endometriosis [1]. We agree that MRI has the potential to significantly improve the non-invasive diagnosis of endometriosis, which remains challenging, and preoperative planning for the surgeon. We are excited by the enthusiasm of the authors to pursue research on endometriosis. However, we would like to bring a few important points to the notice of the authors and readers.

First, the utility of transvaginal ultrasound (TVS), or ultrasound in general, is much greater than what was presented. The authors simply state that TVS is useful to "discern endometriomas from other ovarian cysts." Indeed, a Cochrane systematic review and meta-analysis demonstrated TVS has a sensitivity of 93% and specificity of 96% for diagnosing endometriomas [2]. Similarly, ultrasound is reliable in identifying "kissing ovaries" [3] and ovarian immobility on dynamic assessment [4], a unique benefit of ultrasound over MRI. The authors state that "kissing ovaries" on MRI should raise concern for severe disease at surgery as stated by the authors. This finding is not surprising or novel. It should be very clear by looking at the revised American Society of Reproductive Medicine (ASRM) classification of endometriosis that even one endometrioma of 1cm equates to Stage III (moderate) endometriosis, let alone bilateral

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endometriomas and ovaries that are fixed to each other with dense adhesions.

In contrast to the message of the article, TVS also has a very good diagnostic accuracy for deep endometriosis (DE). The sensitivity and specificity of TVS for DE is 79% and 94%, respectively. In fact, these diagnostic accuracy rates for direct visualization are greater than the article's stated MRI accuracy rates for DE in the presence of retropositioned or "kissing ovaries," and yet there is no mention of the value of ultrasound. Though it is true that "kissing ovaries" should raise suspicion for DE [3], we want to advocate for a thorough assessment of DE in all patients with signs and symptoms of endometriosis. For a disease that evades many healthcare providers, we should not just look when something as loud and obvious as "kissing ovaries" with endometriomas is present.

As stated by the authors, TVS is the "initial imaging modality of choice to evaluate pelvic endometriosis." As ultrasound has demonstrated everything these authors have found and also has the added value of being dynamic, cheap, accessible, and acceptable to patients, we encourage the authors and others to explore ultrasound as a diagnostic and surgical planning tool.

References

- Williams JC, Burnett TL, Jones T, Venkatesh SK., Van Buren WM (2019) Association between kissing and retropositioned ovaries and severity of endometriosis: MR imaging evaluation. Abdom Radiol. https://doi.org/10.1007/s00261-019-02153-6
- Nisenblat V, Bossuyt PMM, Farquhar C, Johnson N, Hull ML (2016) Imaging modalities for the non-invasive diagnosis of endometriosis. Cochrane Database Syst Rev Art. No.: CD009591. https://doi.org/10.1002/14651858.CD009591.
- Ghezzi F, Raio L, Cromi A, et al (2005) "Kissing ovaries": A sonographic sign of moderate to severe endometriosis. Fertil Steril 83:143–7. https://doi.org/10.1016/j.fertnstert.2004.05.094
- 4. Gerges B, Lu C, Reid S, Chou D, Chang T, Condous G (2017) Sonographic evaluation of immobility of normal and



endometriotic ovary in detection of deep endometriosis. Ultrasound Obstet Gynecol 49:793–8. https://doi.org/10.1002/uog.15990

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