Magnetic resonance imaging management of placenta accrete spectrum

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TO THE EDITORS: We read the article by Einerson et al[1] with great interest. They published an extremely important retrospective study that described the use of magnetic resonance imaging with suspected placenta accrete spectrum disorders (PASs). Nevertheless, we noticed an important error in the data that warrants further acknowledgment.

According to the flow diagram presented in Figure 1, severe PAS was suspected on ultrasound scanning (US). However, in the text, the authors state, "Severe PAS was suspected on US in 14 cases." Moreover, a few sentences later, it is mentioned that "When US interpretation was severe PAS, it was correct in 11 of 15 cases (positive predictive value, 73%; 95% CI, 0.45−0.91)." Therefore, it is unclear how many cases were suspected to have severe PAS according to the sonographic assessment: 14 or 15. Because several of the calculations presented in the study are based on the overall number of cases suspected to have severe PAS on US, we believe the issue raised by us requires further clarification. ■

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The authors report no conflict of interest.

REFERENCE

1. Einerson BD, Rodriguez CE, Kennedy AM, Woodward PJ, Donnelly MA, Silver RM. Magnetic resonance imaging is often misleading when used as an adjunct to ultrasound in the management of placenta accreta spectrum disorders. Am J Obstet Gynecol 2018;218:618.e1–7.

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REPLY

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We thank Dr. Rottenstreich et al for their close reading of our data and interest in our study on magnetic resonance imaging (MRI) in the management of placenta accreta spectrum disorders (PAS).[1] Thank you for the opportunity to clarify our results.

The authors of the letter identify inconsistencies in our reporting of ultrasound scanning (US) interpretation data. To be sure of the validity of our results, we reviewed each case in our study. We discovered a coding error for 2 cases in the dataset that was used for analysis of US interpretation. This led to slightly different results in Figure 1 and in the text of our paper. This error affected only the coded US interpretation and did not affect the correct classification of our primary outcome (a change in diagnosis that could alter clinical management) or any of the other secondary outcomes reported. Rerunning our analyses yielded identical results, except for those that are clarified in the next paragraphs.

In the US interpretation box of Figure 1, the number of cases of "Mild PAS" should be 41, and the number of cases of "Severe PAS" should be 14. This is consistent with the text cited by the responding authors that "Severe PAS was suspected on US in 14 cases. Of these, MRI changed the diagnosis in 2 (14%)." The numbers of "PAS not suspected" and "PAS suspected" in Figure 1 are correct. We confirmed by case review that all of the other numbers and calculations in Figure 1 are correct.

With regard to positive predictive value of US for severe PAS in our study, when US interpretation was severe PAS, "it was correct in 11 of 15 cases (positive predictive value, 73%; 95% CI, 0.45−0.910" should instead read "it was correct in 11 of 14 cases (positive predictive value, 79%; 95% CI, 0.49−0.95)." This, we note, is in comparison with the positive predictive value of MRI, which was 61% (95% CI, 0.41−0.78) as we originally reported. ■

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1. Einerson BD, Rodriguez CE, Kennedy AM, Woodward PJ, Donnelly MA, Silver RM. Magnetic resonance imaging is often misleading when used as an adjunct to ultrasound in the management of placenta accreta spectrum disorders. Am J Obstet Gynecol 2018;218:618.e1–7 (Erratum appears in Am J Obstet Gynecol 2018;218:618.e1-7).

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