

EP.14.06.Comparison of MV-Flow™ and power Doppler for assessing lesion vascularization in rectal endometriosis.

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Objective

To compare the vascularization of rectal endometriotic nodules using MV-Flow™ and conventional power Doppler.

Methods

Thirty consecutive women diagnosed with deep endometriosis involving the rectum were recruited for this prospective study. All women underwent transvaginal ultrasound using a Samsung V8 ultrasound system (Samsung Medison, Co., Ltd., Seoul, South Korea). The scanning protocol was performed according to the IDEA consensus. Endometriotic lesions involving the rectum were identified as hypoechoic lesions with blurred margins. Then, power Doppler was activated and the vascularization of the lesion was assessed(Figure 1A). Immediately after, the MV-Flow™ with the LumiFlow™ was activated and the vascularization was assessed again (Figure 1B). Vascularization assessment was undertaken based to the subjective examiner’s impression, using the vascular score proposed by IOTA group.

Results

The vascular score using conventional power Doppler was score 1 in 87% (n=26) and score 2 in 13%(n=4) of the lesions, respectively.

The vascular score using MV-Flow™ was score 1 in 6% (n=2), score 2 in27% (n=8), score 3 in 40% (n=12) and score 4 in 27% (n=8) of the cases.

Grouping cases into score 1-2 versus score 3-4, there was a statistically significant difference with score 3-4 when using MV-Flow™ (67%versus 0%, p<0.01). (Figure 2)

Conclusion

This study shows that many rectal endometriotic nodules exhibit more vascularization thanpreviously thought when using MV-Flow™.

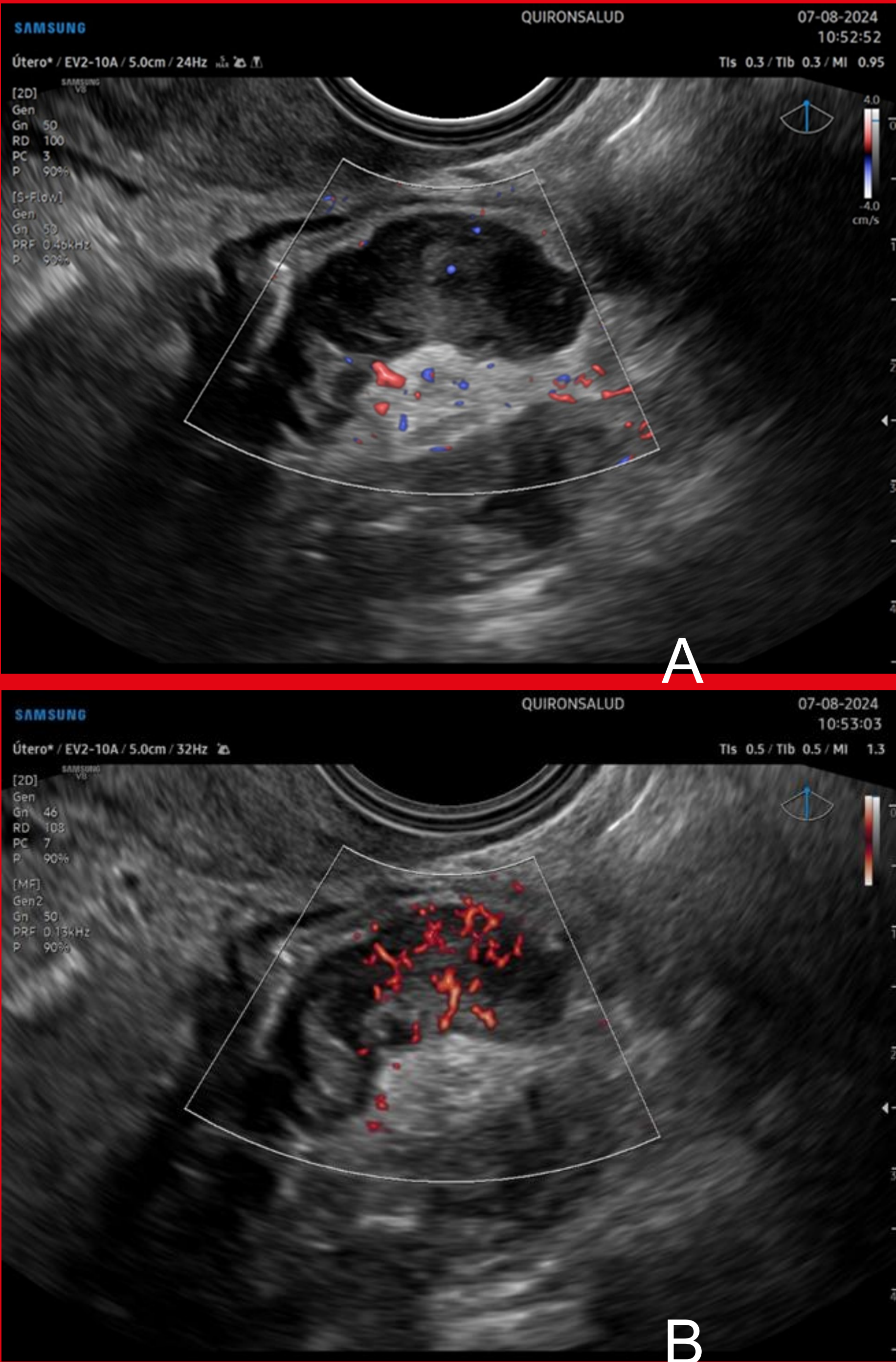


Figure 1. Vascularizarization of an rectal DE nodule with power Doppler (A) and MV-Flow (B)

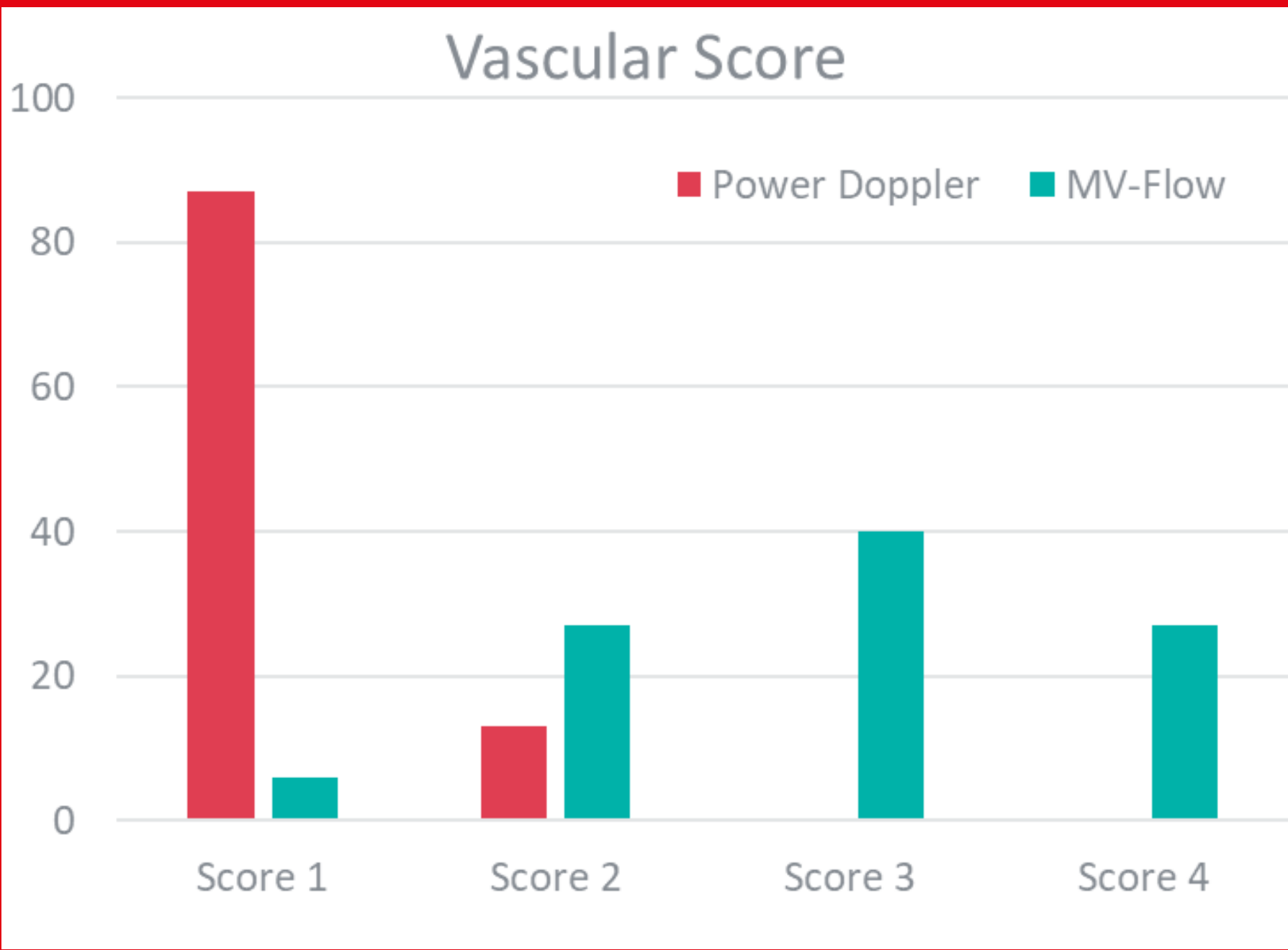


Figure 2. Distribution of color score with Power Doppler and MV-Flow