



## ASO Author Reflections: Understanding the Association between Extramural Venous Invasion and Survival in Rectal Cancer Patients

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### PAST

Extramural venous invasion (EMVI) is associated with a poor prognosis in patients with locally advanced rectal cancer.<sup>1</sup> With evolving treatment paradigms for these patients, such as total neoadjuvant therapy (TNT) and watch-and-wait, it is imperative to understand the true impact of EMVI positivity at baseline and after neoadjuvant treatment.<sup>2,3</sup> Accurate assessment of EMVI regression after neoadjuvant treatment can help inform selection of patients for treatment adjustments and can also help inform long-term prognosis.

### PRESENT

Our retrospective analysis of data from 175 patients with locally advanced rectal cancer treated with TNT followed by total mesorectal excision found that patients with EMVI on baseline magnetic resonance imaging (MRI) had shorter disease-free survival and shorter overall survival on average than patients without EMVI on baseline MRI.<sup>4</sup> In exploratory analyses, regression of EMVI after TNT was positively associated with survival. We found considerable discordance between post-TNT MRI and surgical pathology in the assessment of EMVI regression. Our data suggest that post-TNT MRI should be interpreted with caution, as it appears to underestimate EMVI regression.

### FUTURE

Improving the accuracy of post-TNT assessment of EMVI will aid effective implementation of non-operative and other treatment deintensification strategies for rectal cancer. Future work may benefit from advanced analyses, such as artificial intelligence, to resolve some of the discrepancies between EMVI regression on post-TNT MRI and surgical pathology.<sup>5</sup>

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