

# Endorectal Ultrasound Examination is Still a Useful Tool for Re-staging of Rectal Cancer After Completion of Neo-Adjuvant Therapy

Authors: Joshua D. Corteville, MD., Mohammed Barawi, MD., Amer Alame, MD., Robert Leonard, MD., Amr Aref, MD.

## **Background:**

We are conducting a phase II prospective trial focused to evaluate the utility of full thickness local excision for patients who have a clinically complete response to neo-adjuvant therapy who were previously diagnosed with moderately advanced rectal cancer. All patients in this study had an endoscopic ultrasound (EUS) shortly prior to surgery. This was done to triage patients into two separate surgical treatment groups; local excision or total mesorectal excision. We aim to report on the accuracy of EUS as an effective re-staging tool within this context.

## **Materials & Methods:**

Currently, a total of eleven patients are enrolled on this trial. Nine of these patients have completed their therapy and their data is available for analysis. All patients enrolled underwent induction chemotherapy which consisted of 6 cycles of FOLFOX chemotherapy, followed by a course of radiotherapy 3 weeks post FOLFOX. Additionally, capecitabine or infusional 5-FU was given concurrently during the course of their radiation therapy. The radiation dose ranged between 45Gy to 54Gy depending on the tumor response to the induction chemotherapy.

Re-staging via EUS was completed between 5-13 weeks post radiation, with a median value of 6 weeks. The median intervals between EUS and surgery, and completion of radiation therapy and surgery are 2 weeks (1.5-4 weeks) and 8 weeks (7-13 weeks) respectively. All EUS exams were performed by one highly experienced gastroenterologist.

## **Results:**

On re-evaluation of tumor response, EUS indicated a clinical complete response in 3/9 patients. All 3 of these patients had a pathological complete response. EUS indicated residual disease in 6/9 patients. Only one of these 6 patients had complete pathological response, and the remaining 5 patients had residual disease. EUS was able to accurately determine the pathological response in 8 out of the 9 patients involved in this study.

## **Discussion & Conclusion:**

Our data does not support the conclusion of several reported studies, including meta-analysis', that do not see a benefit in the use of EUS evaluation following neo-adjuvant therapy for moderately advanced rectal cancer.

Admittedly, the number of patients included in this analysis is small. However, we believe our results suggest the use of EUS can be a helpful tool in re-staging rectal cancer after neo-adjuvant therapy, and therefore should not be dismissed as a useful tool.