Chirurgia (Bucur). 2021;116(5):542-553
http://dx.doi.org/10.21614/chirurgia.116.5.542

Endorectal Ultrasound in Local Recurrence of Rectal Cancer: A Systematic Review

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Abstract

Local recurrence (LR) of rectal cancer (RC) has a disease-free survival rate of up to 50% if diagnosed early. Endorectal ultrasound (ERUS) is an outpatient procedure that can be used together with rectal digital examination for patient follow-up. This is the first study to determine the diagnostic test accuracy of ERUS in the detection of LR after RC and whether it is a good follow-up method. Three authors independently searched MEDLINE and ClinicalTrials.gov databases and included relevant original studies based on strict inclusion/ exclusion criteria. 3220 articles were identified. After reading the abstracts, 50 articles were selected, out of which 22 were deemed suitable for study inclusion, comprising 3737 patients, which were followed for 59,72 ± 16,4 months. Based on the available data, sensitivity of ERUS was 88,3% (CI 84,6 – 91,3%), specificity was 94,3 % (CI 92,7 – 95,5%) and diagnostic odds ratio of ERUS was 271,88 (CI 76,998 – 960,04), with ERUS being the only diagnosis method to

detect LR in 40 ± 12%. Area under the curve for ERUS was 0,9723 ± 0,0131. LR after curative treatment of RC in our study was 15 ± 2,99%. Concluding, ERUS seems to be a good and efficient follow-up method for diagnosing RC LR.

Key words: endorectal ultrasound, recurrent rectal cancer, local recurrence, follow-up