

## Comparison of Staging and Treatment of Rectal Cancer between Patients Younger and Older than 70 years – An International Multicenter Study

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### ABSTRACT

**Introduction:** Colorectal cancer remains one of the major issues in modern healthcare, being one of the most common neoplasms and the second leading cause of cancer-related deaths. Despite significant recent advances, treatment modalities and the popularization of screening programs, treatment course and outcomes still vary among patients. This study aimed to observe the differences in staging, course of treatment, and survival between patients <70 and ≥70 years old with rectal cancer.

**Material and Methods:** The study was a retrospective analysis of data collected prospectively in nine centers located in Poland, Romania, and Germany. Consecutive patients operated on for rectal cancer between 2013-2019 were included and divided into groups <70 and ≥70.

**Results:** A total of 2443 patients were included with a median age of 66 years and a predominance of male (63.16%). There were no significant differences in terms of sex, tumor localization or staging between the younger and the older group. A significantly higher number of procedures with stoma creation was observed and a lower number of lymph nodes yielded in older patients. There were no significant differences in the rate of R0 resections. The use of preoperative radiotherapy was also

higher in the younger group. The rate of complete response did not differ significantly, and the overall survival was significantly lower in older patients.

*Conclusions:* Despite similar staging, older and younger patients receive different treatment course, including less radical surgery and less frequent use of radiotherapy. Overall survival is poorer in older patients in stages I-IV.

**Keywords:** rectal cancer, age groups, radiotherapy, surgery