THE IMPACT OF SOCIOECONOMIC POSITION ON STAGE AT DIAGNOSIS AND SURVIVAL IN COLORECTAL CANCER PATIENTS IN SWITZERLAND

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Background International studies, outside Switzerland, have reported socioeconomic inequalities in colorectal cancer (CRC) stage at diagnosis and survival. This study aims to investigate the association between socioeconomic position (SEP) and CRC stage at diagnosis and survival among people living in Switzerland.

Methods This study used population-based CRC data from seven Swiss cantonal cancer registries 2001-2008 (N=10,088) anonymously linked to the Swiss National Cohort (SNC). Follow-up and cause-specific death information was available until the end of 2013. We used education to estimate SEP (low/middle/high). The association between cancer stage at presentation and SEP has been investigated using logistic regressions (UICC stage I versus II-IV). Models included the following covariates: cancer location (colon/rectum), sex, age at diagnosis (30-49/50-64/65-74/75-84 years), civil status (single/married/widowed/divorced), urbanity of residence (urban/peri-urban/rural), language region (German-/French-/Italian-speaking) and nationality (Swiss/non-Swiss). Survival was analysed using competing risk regressions reporting sub-hazard ratios (SHRs) for the risk of dying due to CRC.

Results We observed a social gradient for later stage CRC with adjusted odds ratios (ORs) of 1.05 (95%CI 0.93-1.19) and 1.17 (95%CI 1.01-1.35) for middle and low SEP people. People below 50 years (OR 1.24, 95%CI 1.00-1.53) and above 75 years of age (OR 1.19, 95%CI 1.04-1.35), and single compared to married people (OR 1.29, 95%CI 1.07-1.54) showed elevated risks of being diagnosed at later stages. CRC patients with low SEP (SHR 1.39, 95%CI 1.20-1.60) showed increased hazards of dying due to CRC (SHR 1.13, 95%CI 1.02-1.25). However, after additional adjustment for stage at diagnosis, observed survival inequalities disappeared.

Conclusions In Switzerland, people of low SEP are more likely to be diagnosed at later CRC stages than those of high SEP. In addition, socioeconomic inequalities in survival after CRC diagnosis have been observed. However, survival inequalities could be sufficiently explained by stage at diagnosis arguing against substantial inequalities in CRC treatment.