powered by



Contribution ID: 26

Type: POSTER

# Associations of sleep characteristics with health-related quality of life in early versus late onset colorectal cancer patients

### Introduction

Sleep disturbances and chronotype have been implicated in cancer-related outcomes, yet their impact on health-related quality of life (HRQoL) in colorectal cancer (CRC) patients remains underexplored. This study examines longitudinal associations between sleep characteristics, chronotype, and HRQoL in early onset (EO) (<50 years) and late onset (LO) (>50 years) CRC patients.

#### Methods

We included 905 CRC patients from the ColoCare Study in Germany and the USA. Chronotype was assessed using the reduced Morningness–Eveningness Questionnaire, sleep latency and duration by the Pittsburgh Sleep Quality Index. HRQoL scales were measured using the standardized EORTC QLQ-C30 questionnaire. Multivariate linear regression models examined associations between sleep, chronotype, and HRQoL presurgery and six months thereafter.

#### Results

Morning chronotype and favorable sleep characteristics were significantly associated with improved HRQoL among LO-CRC patients at six months. Morning types reported better physical ( $\beta = 11.56$ , p = 0.01), emotional ( $\beta = 10.55$ , p = 0.04), and cognitive functioning ( $\beta = 14.41$ , p = 0.002), along with less fatigue ( $\beta = -16.48$ , p = 0.004), dyspnea ( $\beta = -14.39$ , p = 0.02), and pain ( $\beta = -17.64$ , p = 0.003). Similarly, longer sleep duration (>7 h) was linked to better global health, physical, role, emotional, cognitive, and social functioning (all p < 0.01), and fewer symptoms including fatigue, insomnia, nausea, appetite loss, diarrhea, and financial difficulties (all p < 0.05). Less symptom burden was also observed in EO-CRC patients with a longer sleep duration (>7 h). Shorter sleep latency (<15 min) was associated with improved global health and psychosocial functioning, and reduced fatigue, insomnia, pain, and constipation. These associations were specific, except for insomnia, to the LO-CRC group and were not observed among EO-CRC patients.

### Discussion

These findings suggest that morning chronotype and favorable sleep patterns may play an important role in improving HRQoL among LO-CRC patients.

## **Research type**

Clinical research

**Primary author:** DAMERELL, Victoria (Department of General, Visceral and Transplantation Surgery, Heidelberg University Hospital, Germany)

**Co-authors:** HARDIKAR, Sheetal (Huntsman Cancer Institute, Salt Lake City, Utah, USA); LIN, Tengda (Huntsman Cancer Institute, Salt Lake City, Utah, USA); KAHLERT, Christoph (Department of General, Visceral and Transplantation Surgery, Heidelberg University Hospital, Germany); MEDHE, Apurva (Department of Surgery, Washington University St. Louis, St. Louis, Missouri, USA); NGUYEN, Nathalie (Department of Medicine, Samuel Oschin Comprehensive Cancer Institute, Cedars-Sinai Medical Center, Los Angeles, California, USA); LI,

Christopher I (Division of Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, Washington, USA); SHIBATA, David (Department of Surgery, University of Tennessee Health Science Center, Memphis, Tennessee, USA); BYRD, Doratha A (Department of Cancer Epidemiology, H. Lee Moffitt Cancer Center and Research Institute, Tampa, Florida, USA); ULRICH, Cornelia M (Huntsman Cancer Institute, Salt Lake City, Utah, USA); FIGUEIREDO, Jane C (Department of Medicine, Samuel Oschin Comprehensive Cancer Institute, Cedars-Sinai Medical Center, Los Angeles, California, USA); TORIOLA, Adetunji T (Department of Surgery, Washington University St. Louis, St. Louis, Missouri, USA); PEOPLES, Anita R (Huntsman Cancer Institute, Salt Lake City, Utah, USA); GIGIC, Biljana (Department of General, Visceral and Transplantation Surgery, Heidelberg University Hospital, Germany)

**Presenter:** DAMERELL, Victoria (Department of General, Visceral and Transplantation Surgery, Heidelberg University Hospital, Germany)

Session Classification: Poster presentation