Time to Diagnosis of Early-Onset vs. “Late-Onset” Colorectal Cancer: Is there a difference?

Kayla L. Chin¹, Laura E. Myers¹, Jessica M. Coffing¹, Jason Larson¹, Thomas F. Imperiale²,³
¹Health Services Research & Development, Richard L. Roudebush VA Medical Center
²Indiana University School of Medicine
³Regenstrief Institute

BACKGROUND
Colorectal cancer (CRC) incidence and mortality is increasing in persons < 50 years old. Intervals between symptom onset and initial presentation (presentation interval [PI]) and between initial presentation and diagnosis (diagnosis interval [DI]) are not well-quantified.

OBJECTIVE
Compare PI and DI between early-onset CRC (EOCRC) and persons ≥50, and identify factors affecting these intervals.

METHODS
In this retrospective VA-based case-control study, we identified EOCRC cases from an ongoing study and compared them to controls (CRC patients aged ≥50 years). We abstracted demographics, clinical features, CRC location and stage, PI, and DI. Mann-Whitney tests compared mean and median PI and DI.

RESULTS
Advanced stage (III-IV) CRC was more common among the 240 EOCRC patients (mean age: 45.2, 60.8% White) than in the 234 controls (mean age: 63.8, 71.8% White): 55.4% vs 43.5%; P= 0.015. PI and DIs, respectively, were present for 153(63.8%) and 222(92.5%) of cases and for 74(31.6%) 222(94.9%) of controls. No difference was found between median PI in EOCRC and late-onset CRC patients (42 vs 60 days, P= 0.68). The EOCRC cases had a significantly shorter median DI (41 [IQR = 16-83] vs 71 days [IQR = 32-145], P<0.0001).

CONCLUSIONS
In this retrospective study, younger patients had more advanced stage CRC at diagnosis than their older counterparts. However, contrary to published data, median time to diagnosis was shorter in those < 50 years. Factors associated with the DI are forthcoming. Candidate factors include race, diagnosis year, presenting symptoms, type of initial provider, CRC stage, and CRC location.