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608P Variations in clinicopathological features, treatment patterns, and outcomes of young adults with colorectal cancer in the United States and Egypt

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Background: A recent American Cancer Society study showed that the rate of colorectal cancer (CRC) in young American adults is rising. There are limited data on young Arabian adults with CRC. Herein we explore differences between American and Egyptian young adults with CRC.

Methods: A retrospective review of young (≤ 46 years old) patients (pts) with CRC in the United States (US-pts) and Egypt (EGY-pts) was undertaken. T and Fisher's exact tests were used for comparative analyses. Kaplan-Meier methodology estimated survival.

Results: In total, 504 pts with CRC were studied, incorporating 62 US-pts (median age 38 yrs, range 20-46) and 442 EGY-pts (35 yrs, 15-46). US-pts were more commonly female (66% vs 41%, $p < 0.001$) and had more colon primaries (75% vs 50%, $p = 0.001$). EGY-pts had more left-sided tumors (78% vs 61%, $p = 0.008$), of which 49% were rectal primaries (vs 24% for US-pts, $p < 0.001$). US-pts had more well-differentiated tumors (25% vs 3%, $p < 0.001$), whereas EGY-pts had more mucin-producing tumors (40% vs 26%, $p = 0.042$). US-pts were more likely to have bowel obstruction (64% vs 17%, $p < 0.001$) and present with metastatic (met) disease (66% vs 28%, $p < 0.001$), particularly in the liver, lung, and peritoneum (56% vs 40%, $p = 0.04$; 35% vs 5%, $p < 0.001$; 48% vs 16%, $p < 0.001$). Comparing pts with met disease, EGY-pts tended to have rectal primaries (33% vs 22%), while US-pts had more right-sided tumors (38% vs 18%). US-pts were more likely to undergo palliative resection or metastatectomy (41% vs 26%, $p = 0.039$) and receive bevacizumab (69% vs 1%, $p < 0.001$). EGY-pts received more 5-FU alone (39% vs 2%, $p < 0.001$) or 5-FU + radiation (40% vs 0%, $p < 0.001$), whereas US-pts received more FOLFOX/FOLFIRI (64% vs 13%, $p < 0.001$). There was no statistically significant difference in median overall survival between US-pts (Not Reached) and EGY-pts (76 months (mos), $p = 0.6$), nor median progression free survival between US-pts (20 mos) and EGY-pts (13 mos, $p = 0.202$).

Conclusions: Significant differences were observed among young US-pts and EGY-pts with CRC, particularly primary tumor location, patterns of metastasis, and treatment used. Further evaluation of the environmental and ethnic impact on disease biology and treatment outcomes is warranted.

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