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APPENDICEAL ADENOCARCINOMA: OVERALL SURVIVAL ASSOCIATED WITH ADJUVANT CHEMOTHERAPY IS LOWER THAN EXPECTED.

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Purpose/Background: National guidelines currently recommend similar adjuvant chemotherapy for surgically resected stage III appendiceal and colonic adenocarcinoma. This study evaluated the benefit of adjuvant chemotherapy on overall survival in stage III appendiceal adenocarcinoma compared with colonic adenocarcinoma.

Methods/Interventions: A retrospective review of the National Cancer Database was performed to identify patients with stage III appendix or right colon adenocarcinoma from 2006 to 2013 who underwent right colectomy. Cases were analyzed by use of adjuvant chemotherapy. The Kaplan-Meier method was used to estimate overall survival probabilities.

Results/Outcome(s): In total, 495 appendiceal cases (376 with chemotherapy; 119 without chemotherapy) and 37,215 colonic cases (24,607 with chemotherapy; 12,608 without chemotherapy) were identified. Three-year survival probabilities for appendix were 0.69 (0.64, 0.75) with chemotherapy and 0.45 (0.36, 0.57) without chemotherapy. Three-year survival probabilities for right colon were 0.76 (0.76, 0.77) with chemotherapy and 0.43 (0.42, 0.44) without chemotherapy. Five-year survival probabilities for appendix were 0.54 (0.48, 0.61) with chemotherapy and 0.36 (0.27, 0.49) without chemotherapy. Five-year survival probabilities for right colon were 0.65 (0.65, 0.66) with chemotherapy and 0.31 (0.30, 0.32) without chemotherapy. Appendiceal cancer patients who received adjuvant chemotherapy tended to be younger (58.8 vs 64.8 years, $p < 0.01$) and have fewer comorbidities (Charlson/Deyo score 0.22 vs 0.35, $p < 0.01$) than colon cancer patients who received adjuvant chemotherapy.

Conclusions/Discussion: Adjuvant chemotherapy is associated with improved overall survival in both appendix and right colon adenocarcinoma. However, with adjuvant chemotherapy, overall survival is worse among those with appendix adenocarcinoma despite decreased age and comorbidities.

Table. Overall survival probabilities

	3 year (CI)	5 year (CI)
Appendix	-	-
With chemotherapy	0.69 (0.64, 0.75)	0.54 (0.48, 0.61)
Without chemotherapy	0.45 (0.36, 0.57)	0.36 (0.27, 0.49)
Colon	-	-
With chemotherapy	0.76 (0.76, 0.77)	0.65 (0.65, 0.66)
Without chemotherapy	0.43 (0.42, 0.44)	0.31 (0.30, 0.32)