

588P The role of primary tumour location in the recurrence rate of metachronous metastasis of colon cancer

M. Rimini¹, C. Bardasi², F. Gelsomino³, K. Andrikou³, C. Santini², G. Orsi⁴, M. Salati⁵, M.L. Riggi⁴, S. Pipitone⁶, S. Cascinu⁷, A. Spallanzani³

¹Modena Cancer Center, Department of Oncology/Hematology, University of Modena, Azienda Ospedaliero - Universitaria Policlinico di Modena, Modena, Italy, ²Modena Cancer Center, Department of Oncology/Hematology, University of Modena and Reggio Emilia, Modena, Italy, ³Medical Oncology, University Hospital of Modena, Modena, Italy, ⁴Department of Oncology/Hematology, University of Modena and Reggio Emilia, Modena Cancer Center, Modena, Italy, ⁵Modena Cancer Center, Department of Oncology/Hematology, Azienda Ospedaliero - Universitaria Policlinico di Modena, Modena, Italy, ⁶Dipartimento di Oncologia ed Ematologia, Azienda Ospedaliero - Universitaria Policlinico di Modena, Modena, Italy, ⁷Oncology, Azienda Ospedaliero - Universitaria Policlinico di Modena, Modena, Italy

Background: Recent studies suggest that primary tumour location (PTL) has a prognostic value in patients (pts) with metastatic colorectal cancer (CRC), while its role in early stage disease remains unclear. The aim of this analysis is to investigate the relationship between PTL and the development of metachronous metastasis.

Methods: We performed a population-based study from Modena Cancer Registry collecting data of patients (pts) with early stage disease (stage I, II, III) who underwent surgery from 1995 to 2010. We hypothesized a potential impact of PTL on the postoperative recurrence rate. Fisher's exact test, univariate and multivariate Cox regression analysis were performed.

Results: During the study period, 1570 pts with left-sided colon cancer (LCC) and 841 pts with right-sided colon cancer (RCC) were registered. In the entire cohort, 268 of 1576 pts (17%) with LCC and 100 of 841 pts (11.2%) with RCC developed metachronous metastasis, for a total of 368 of 2411 pts (15%). Comparing LCC and RCC clinical and pathological status we found no statistically difference in lymph-node status ($p = 0.737$) but an increasing rate of G3 cancers in RCC vs LCC ($p = 0.010$). Median overall survival (OS) from early stage disease diagnosis for LCC patients was 45 months versus 35 months for RCC patients, with no significant difference in relapse free survival between the two groups (23.8 Vs 23.0 months). When relapsed, time to death resulted to be significantly longer in LCC group than in RCC group (14.7 vs 6.3 months; HR 1.46, 95% C.I. 1,16-1,86; $p < 0,001$). In the multivariate Cox regression analysis adjusted for grading and stage at diagnosis, we confirmed a statistically significant impact of the primary tumour sidedness on OS in the relapsed setting (HR 1.48, 95% C.I. 1.15-1.89, $p = 0.001$).

Conclusions: In accordance to literature, our registry data confirm the prognostic role of PTL in advanced colorectal cancers: in particular, right-sided tumours have low recurrence rate but poor prognosis once relapsed. Other investigations are necessary to better understand the substantial heterogeneity within the molecular biology of RCC and LCC in order to provide a better post-operative surveillance and to select the most effective treatment strategies after relapse.

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