Conclusion: Among the 1869 pts with full molecular data available, 755 (40%) had a right-sided tumor, 164 (10%) were MSI, 942 (50%) were mutated for RAS and 212 (11%) were mutated for BRAF. Right-sided tumor was not prognostic for DFS in the whole population but was associated to a shorter SAR (HR: 1.54 [1.23 - 1.93], p = 0.001) and OS (HR: 1.25 [1.02 - 1.54], p = 0.03). Same results were observed for MSS and for MSI pts. However, when looking at pts mutated for RAS or BRAF (MUT) and those double wild type (DWT) for those mutations, we found that right-sided tumors, when compared to left-sided tumors, was associated with a worst DFS in DWT patients (HR:1.39[1.01-1.92], p = 0.04) and a better DFS in MUT patients (HR:0.77[0.63-0.95], p = 0.01). These results were found independently of the treatment received and no beneficial effect of cetuximab in DWT or OS was observed in left-sided tumors.

Conclusion: In the whole study population of stage III CC pts, though right-sided tumor location influences OS as previously reported, it does not seem to influence DFS but only SAR, when disease becomes metastatic. Interestingly, sidedness seems to influence DFS when splitting the population in MUT or DWT for RAS and BRAF, with a worst DFS for right-sided tumors in DWT and a worst DFS for left-sided tumors in RAS or BRAF mutants.

OS-015 Prognostic value of primary tumor location in stage III colon cancer is associated with RAS and BRAF mutational status.


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Introduction: Recent data suggest that the anatomic site of colon primary tumor may be an important factor in the interpretation of molecular markers with clinical outcome in metastatic colon cancer (CC) patients (pts). We assessed here the prognostic value of primary location in fully resected stage III CC pts and its relationship to MSI, RAS and BRAF mutational status.

Methods: Pts enrolled in the PETACC-8 trial were analyzed. We categorized tumor site as located proximal (left-sided) or distal (right-sided) to the splenic flexure. The association between tumor location and disease free survival (DFS), survival after relapse (SAR) and overall survival (OS) were assessed by Cox models and adjusted for clinical and pathological features, MSI, BRAF and RAS mutation status. The outcome of pts receiving FOLFOX or POLFOX and cetuximab in the adjuvant setting were also determined according to tumor site.

Results: Among the 1869 pts with full molecular data available, 755 (40%) had a right-sided tumor, 164 (10%) were MSI, 942 (50%) were mutated for RAS and 212 (11%) were mutated for BRAF. Right-sided tumor was not prognostic for DFS in the whole population but was associated to a shorter SAR (HR: 1.54 [1.23 - 1.93], p = 0.001) and OS (HR: 1.25 [1.02 - 1.54], p = 0.03). Same results were observed for MSS and for MSI pts. However, when looking at pts mutated for RAS or BRAF (MUT) and those double wild type (DWT) for those mutations, we found that right-sided tumors, when compared to left-sided tumors, was associated with a worst DFS in DWT patients (HR:1.39[1.01-1.92], p = 0.04) and a better DFS in MUT patients (HR:0.77[0.63-0.95], p = 0.01). These results were found independently of the treatment received and no beneficial effect of cetuximab in DWT or OS was observed in left-sided tumors.