SYSTEMATIC REVIEW OF EFFICACY OUTCOMES REPORTED IN RANDOMISED CONTROLLED TRIALS OF FIRST-LINE (1L) THERAPIES FOR METASTATIC BREAST CANCER (MBC)

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OBJECTIVES: There is currently some debate around the optimal role of overall survival (OS) as a gold standard in assessing the benefits of oncology products. The objective of this analysis was to provide evidence to inform this discussion from a review of the clinical outcomes in 1L mBC trials reported over the last 10 years.

METHODS: MEDLINE and Cochrane databases were searched to identify randomised controlled trials of treatments for 1L mBC published between January 2009 and February 2009. Studies in exclusively human epidermal growth factor receptor 2-positive populations were excluded. RESULTS: Clinical efficacy data were extracted from 36 trials. All 36 trials reported response rate (RR), 34 reported a progression-based end point and 33 reported OS. The most commonly stated primary efficacy end points were progression-based; only 6 trials stated OS as the primary end point. Improvement in median OS ranged from 0.1 to 7.8 months, improvement in median progression-free survival (PFS) ranged from 0.1 to 6.4 months and improvement in RR ranged from 0.3% to 28%. Fourteen trials (39%) reported a significant progression-based benefit, 4 of which (36%) reported significant median OS. Each of these 4 trials also reported a significant benefit in RR and median PFS. CONCLUSIONS: Overall, very few 1L mBC trials have reported a significant median OS benefit. Where a significant OS benefit was reported, a significant overall RR and PFS benefit was also reported. These findings are important in light of the ongoing debate on the relevance of currently used clinical end points in mBC trials.

STATIN USE AND THE RISK OF COLORECTAL CANCER: A POPULATION-BASED COHORT STUDY

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OBJECTIVES: Basic scientific evidence suggests that statins inhibit the growth of colon-cancer cell lines, and secondary analyses of some randomized clinical trials suggest that they reduce the risk of colorectal cancer. However, evidence from observational studies has been conflicting on whether the risk of colorectal cancer is reduced in statin users. We sought to assess the association between statin use and the rate of colorectal cancer in a large cohort of residents in Emilia-Romagna, Italy.

METHODS: We conducted a population-based cohort study using the longitudinal health database of Emilia-Romagna, Italy, a region with approximately 4.2 million inhabitants. This comprehensive database contains information on all health care services rendered to the population, including hospital, outpatient pharmacy and specialty data. We identified all initiators of statins; initiators of glucocorticoid medications served as a comparison group. Colorectal cancer cases were identified by hospital discharge data. Multivariable logistic regression analyses were used to adjust for confounding. RESULTS: Patient characteristics were similar in both groups, but statin initiators (30,534) were prevalently male, were slightly younger, and used hospital services more frequently than glucocorticoid medication initiators (78,361). During a maximum of 3 years of follow-up, the incidence rate of colorectal cancer was lower in the statin users than in the glucocorticoid medication users (0.49% vs. 0.79%); Relative Risk, 0.69, 95% CI, 0.52 to 0.92). The adjusted odds ratio for statin use compared with nonuse was 0.67 (95% CI, 0.57 to 0.79). During the first 6 months of follow-up, the incidence of developing ATEE in the 12-month follow-up period was 6.2 per 1000 patient years. CONCLUSIONS: The use of statins suggests that they reduce the risk of colorectal cancer. However, evidence from randomized controlled trials is lacking. Future studies need to specifically address this important issue.

BREAST CANCER PATIENTS ARE TWICE AS LIKE TO DEVELOP ARTERIAL THROMBOEMBOLIC EVENTS AFTER DIAGNOSIS COMPARED WITH CANCER-FREE WOMEN

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OBJECTIVES: To study occurrence of arterial thromboembolic events before and after breast cancer (BC) diagnosis compared to cancer-free controls as this information is lacking in published literature. METHODS: Women who had a first hospitalization for BC between 2002 and 2007 were selected from the PHARMO Record Linkage System, which includes drug use and hospitalization data of approximately 3 million residents in the Netherlands. BC patients were matched 1:10 by age with cancer-free women at the index date, using the date of diagnosis as the index date for both BC patients and their controls. ATEEs were defined as a myocardial infarction, ischemic stroke, unstable angina and transient ischemic attack requiring hospitalization and were assessed 12 months before and 12 months after the index date. RESULTS: The prevalence of ATEE was 2.0% (95% CI:1.6–2.6%), though prevalence was <1% in both groups. The incidence of developing ATEE in the 12-month follow-up period was 6.2 per 1000 person years among patients and 3.8 among controls. BC patients experienced a higher risk of ATEE compared with controls (Hazard Ratio = 1.7 [95% CI:1.3–2.1]). This risk was attenuated but remained statistically significant after adjusting for prior cardiovascular or TEV hospitalization and prior antithrombotic or cardiovascular drug use (Hazard Ratio = 1.3 [95% CI:1.0–1.7]). Independent risk factors for developing ATEE in 12 months after diagnosis were age (50–65 vs <50 years), prior use of antihypertensives or antidepressive drugs and total hospital stay >10 days during the first 6 months of follow-up. CONCLUSIONS: In this population-based study, BC patients were twice as likely to develop ATEE compared to cancer-free controls, although the frequency of events was low. These results emphasize the need for careful observation of BC patients after diagnosis.

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