
Studies of cancer incidence and prevalence in multiple sclerosis (MS) have produced conflicting results. To estimate the incidence and prevalence of cancer in persons with MS and review the quality of included studies, we searched the PUBMED, SCOPUS, Web of Knowledge, and EMBASE databases, conference proceedings, and reference lists of all articles retrieved. Abstracts were screened for relevance by two reviewers. Data from included articles were captured using a standardized form, and the abstraction was verified by a second reviewer. We assessed quality of the included studies. We quantitatively assessed studies using the I² statistic, and conducted meta-analyses for population-based studies. We identified 38 studies. Estimates for incidence and prevalence varied substantially for most cancers. In population-based studies, cervical, breast, and digestive cancers had the highest incidence. The risk of meningiomas and urinary system cancers appeared higher than expected, while the risks of pancreatic, ovarian, prostate and testicular cancer were lower than expected. The complexity of understanding cancer risk in MS is augmented by inconsistencies in study design, and the relative paucity of age, sex and ethnicity-specific risk estimates from which the strong impact of age on the incidence of cancers can be assessed.