שם: ליברודר כרמית

שם העבודה: בחינת הקשר בין סרטן ושבץ מוח איסכמי- Exploring the association between cancer and ischemic stroke

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תקציר:

Background: The risk of stroke among cancer survivors is higher than in people without cancer. The two diseases share risk factors, and together with the increase in survival of cancer patients, the number of people experiencing stroke along with active cancer is increasing.

Objectives: Our study has three main objectives. First, to estimate the risk of stroke in cancer patients, and to identify the period during which an increased risk exists, overall and by type of cancer. Second, to characterize risk factors for stroke in cancer patients, and to identify markers for latent cancer. Third, to examine the prognosis of stroke in patients with active cancer, compared to people without cancer.

Methods: Several datasets will be accessed: 1. The Israeli National Cancer Registry (INCR). 2. The Israeli National Stroke Registry (INSR). 3. A cohort of cancer patients from one of the four Health Maintenance Organizations (HMOs) in Israel. First, in order to investigate the association between stroke and cancer, we will link between the INCR and the INSR. The self-controlled case series method will be used. All Israeli residents aged 40+, with both diagnoses during 2014-2020 will be included. Second, in order to characterize risk factors for stroke in cancer patients, a cox regression analysis will be used, with a follow-up time starting 6 month prior to a cancer diagnosis until a first stroke diagnosis, up to a year following cancer. All Israeli adults aged 40+ with a first diagnosis of cancer during 2014-2021 will be included. The INSR will be linked to the INCR, which includes demographic and tumor related factors. In order to explore additional risk factors for stroke, a cohort of cancer patients from a HMO will be followed until a first diagnosis of stroke. Third, in order to compare the prognosis of stroke in cancer patients to that of people without cancer, several indicators will be examined: 1. Stroke severity (low/medium/high) – using ordinal logistic regression. 2. Recurrent stroke events – using a cox regression. 3. Mortality during hospitalization – using logistic regression. All patients aged 40+ with a first diagnosis of stroke during 2014-2021 will be included.

Importance and innovation: The severity of stroke tends to be higher in cancer patients, they experience more recurrent strokes and higher mortality rates, hence the importance of identifying cancer patients who

are at increased risk of stroke. To the best of our knowledge, a comprehensive study that examined the association between cancer and stroke has not yet been conducted in Israel.