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Editorial Article

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Secondary Prevention of Cancer-Associated Ischaemic Strokes

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Abstract

Background

Cancer patients face a higher risk of developing ischemic strokes in comparison to the general population. Ischaemic strokes in cancer patients either arise from cancer-associated hypercoagulability or as a result of treatment modalities for cancer and have a higher prevalence of presenting as diffuse and multifocal infarcts affecting different areas of the brain. Although Aspirin has been used for prevention of ischemic strokes or transient ischemic attacks in the non-cancerous population, there is no clear guidance for its use in the cancer population.

Keywords: Neurooncology, Ischaemic Stroke, Stroke management

Cancer patients face a higher risk of developing ischaemic strokes in comparison to the general population [1, 2]. Ischaemic strokes in cancer patients either arise from cancer-associated hypercoagulability or as a result of treatment modalities for cancer and have a higher prevalence of presenting as diffuse and multifocal infarcts affecting different areas of the brain [3-5]. The risk of an ischaemic stroke is highest within the first three months of an initial cancer diagnosis. Patients with certain cancers specifically breast, cervical, pancreatic, and lung cancer are at highest risk [4, 5].

The prognosis not only depends on the stage and the type of cancer, but also on the time to treatment initiation and on the overall health condition of the patient. Literature has shown an increased risk of recurrent thromboembolic events within the first four weeks after the initial event and has outlined the necessity of treatment, since the lack of intervention is associated with a higher mortality [4-7].

The beneficial effects of aspirin, independent of dose, on the risk and severity of early recurrent stroke after an ischaemic stroke or a transient ischaemic attack has been illustrated for non-cancer patients [8]. However, in the cancer population, there are currently no guidelines on the loading dose of aspirin or the duration of treatment for the prevention of recurrent ischaemic strokes after an initial ischaemic event. Since the majority of cancer patients, who receive the diagnosis of ischaemic stroke usually have multiple co-morbidities, the choice of treatment must factor in those. Cancer patients also have an increased risk of drug interactions with a potentially higher side effect profile such as increased risk of bleeding. Therefore, treatment must also consider the impact of polypharmacy.

To our knowledge, there is no clear guidance regarding the optimal treatment options for aspirin for cancer-associated ischaemic stroke. Although two publications in literature compared aspirin to subcutaneous enoxaparin, and aspirin to oral anticoagulants, there is no clear guidance on the choice, nor the dose of medication and neither on the duration of treatment [2, 7]. Aspirin has been used in the majority of cases but marked differences in the initial dose and duration of treatment exists, not only in the United States of America, but also across various European countries (personal communication). The paucity of literature addressing this issue indicates the necessity of larger clinical trials to determine the optimal antithrombotic strategy for these high-risk patients.

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