Accident Vasculaire Cérébrale Ischémique Post-Chimiothérapie Pour Cancer de la Langue: Stroke Induced by Chemotherapy for Tongue Cancer

Ms N.M., 47 years old, without cardiovascular risk factor, was followed for squamous cell carcinoma of the evolved tongue, beyond our surgical resources (Figures 1 and 2). An indication of radiochemotherapy was then proposed. The patient was treated with chemotherapy based on 5-fluorouracil and cisplatin according to the following protocol: Cisplatine; 100 mg/m² of body surface area in 1 hour followed for squamous cell carcinoma of the evolved tongue, beyond our surgical resources (Figures 1 and 2). An indication of radiochemotherapy was then proposed. The patient was treated with chemotherapy based on 5-fluorouracil and cisplatin according to the following protocol: Cisplatine; 100 mg/m² of body surface area in 1 hour and 5-fluorouracil; 1000 mg/m² of body surface area on days 1 to 5. Twenty four hours after the first cure of chemotherapy, she presented a paralysis of the left half body of brutal installation. The neurological examination found a left hemiplegia predominantly brachio-facial, with language disorder and left facial paralysis. A cerebral tomodensitometry (CT) without injection of contrast medium was performed and showed a range of hypodensity of the right sylvian territory (Figures 3 and 4). The etiologic assessment was negative. It included cardiovascular exploration (electrocardiogram, transthoracic heart ultrasound and doppler ultrasound of the neck vessels), a lipid assessment (LDL cholesterol, HDL, triglycerides) and inflammatory assessment. The diagnosis retained at the end of this review was the vascular accident on chemotherapy. Anticoagulant treatment has been established. The evolution was marked by a death 72 hours after the installation of the stroke.

Discussion

Ischemic strokes are common in cancer pathology, but ischemic stroke on chemotherapy remain a complication rarely reported in the literature [2-4]. To our knowledge, only 19 cases were published between 1987 and 2015, 15 of these cases were men and 4 women, with an average age of 47.5 years [2]. In a retrospective study by Li et al. Of 10,963 patients treated for various cancers, the incidence of stroke due to chemotherapy is less than 0.14%, and the frequency of complicated chemotherapy cycles by stroke is 0.035% [1]. It is a difficult diagnosis to be made, which can only be carried out in the absence of another cause of stroke, especially cardiac, and on chronological arguments: succession of events, interval with the administration drugs, and pharmacological arguments: known drug toxicity, possible drug combinations, and their biological effects. Studies in the literature show that the risk of ischemic stroke in chemotherapy does not appear to be related to the type of cancer but to the type of drug used [3,4]. Thus, in the cases reported the most incriminated drugs were cisplatin [5-8] which comes in 1st position and 5-Fluorouracil (5FU). Both were used in our patient. Cisplatin and 5FU may cause stroke, alone or in combination with other antimitotics [9]. The imputability of the patient's stroke to these drugs would therefore be the most likely. On the other hand, it was difficult, if not impossible, to specify which of the two drugs was responsible the more so because the accident occurred at the end of the cure and the two drugs involved were already administered. In the study by Li et al. [1], 62.5% of strokes occurred after cycle “1”, suggesting a direct effect of chemotherapy. The free interval suggests an immunoreactive mechanism with a sensitization phase, whereas its absence suggests a direct toxic effect of drugs [6]. We think this was the case with our patient. Hemispheric infarcts are the most frequent: 13/16 in the study of Li et al. [1].

The physiopathology [6,3] of this complication is poorly elucidated,
The causal link between chemotherapy and stroke, as well as the therapeutic attitude, is difficult to establish in the absence of a better understanding of pathophysiological mechanisms. Strict clinical and biological monitoring of patients during chemotherapy, especially with Cisplatin and 5FU, remains the only way to prevent this dreadful complication.

References


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