ACUTE ISCHEMIC STROKE AFTER CHEMOTHERAPY WITH CYSPLATINUM AND GEMCITABINE: A CASE REPORT

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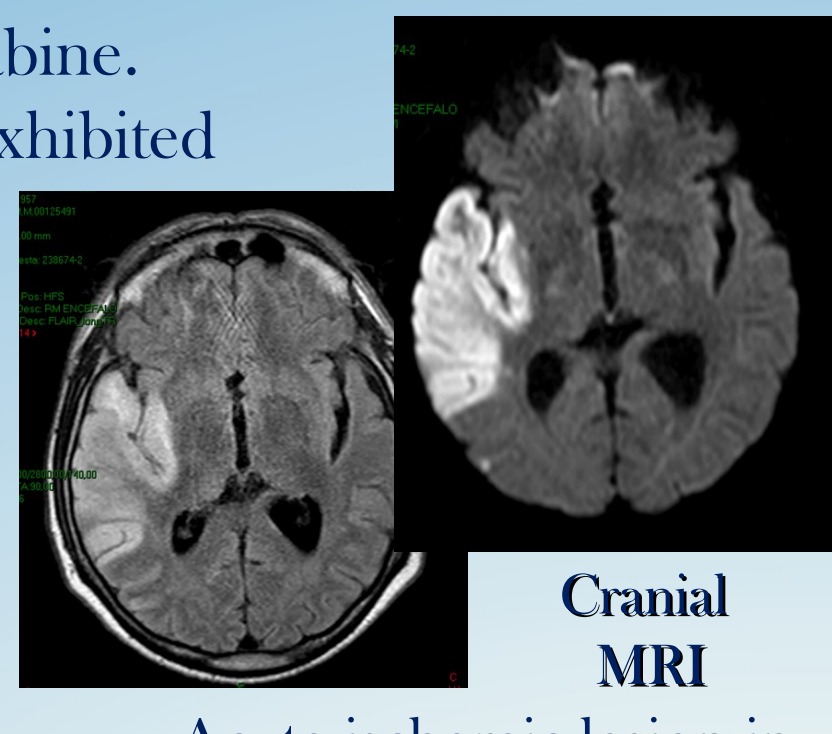
Background

Cancer is a well recognized risk factor for coagulation disorders, thrombosis and vascular events. However, stroke is rarely considered as adverse effect of chemotherapy and may not even be taken into account in reports of cancer treatment trials.

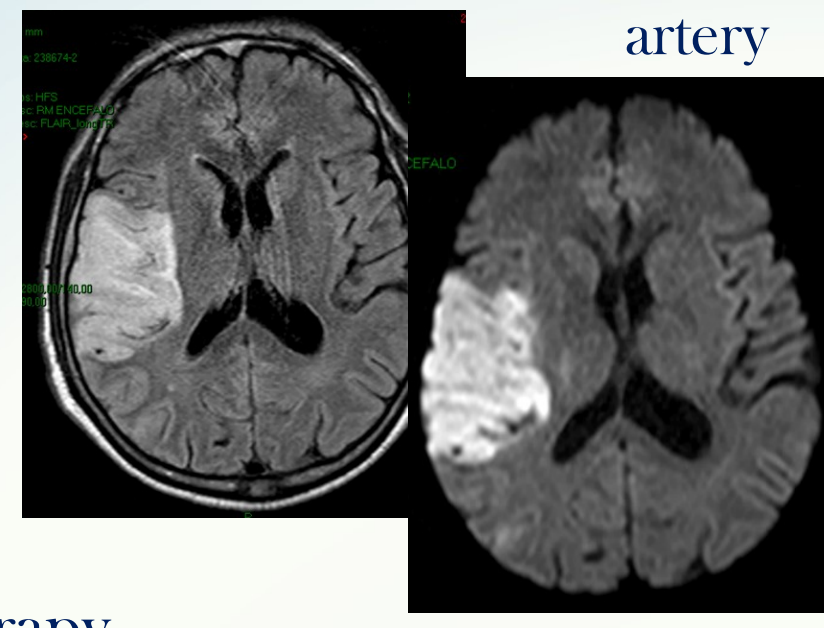
Case report

We report the case of a 58-year-old male with hypertension and no other vascular risk factors, diagnosed as suffering from an urothelial transitional cell carcinoma for whom he started chemotherapeutic treatment with cisplatin and gemcitabine.
Four days after the first cycle of chemotherapy, he suddenly exhibited difficult in oral expression and left limb weakness.
Neurological examination revealed dysarthria, dysphagia, left facial nerve palsy, left hemiplegia, hypoesthesia of the left side and neglect (NIHSS:16).
Results from extensive laboratory and instrumental studies were normal except for protein S deficiency.
The chemotherapy was stopped, the patient started antiplatelet drugs and the cancer was treated with cystectomy some months later. At discharge the patients had a substantial improvement (NIHSS:3) and after 3 months he recovered from neurological deficits.



Cranial MRI

Acute ischemic lesion in the vascular territory of the right middle cerebral artery



Discussion:

The association between malignancy and thromboembolic disease is established in the literature but the relationship between chemotherapy and stroke is less well known –the incidence is very low (0.137%)-. Here we described the first patient that developed stroke just four days after the chemotherapy initiation. The mechanism by which chemotherapy agents promote the occurrence of stroke is not currently clear, but it could be related to endothelial dysfunction, direct vascular toxicity or tumour embolisation.
In conclusion, an extensive evaluation of vascular risk factors, including thrombophilia testing, must be taken into account before starting chemotherapy cycles, in order to establish an appropriate risk-risk-benefit analysis, early diagnose cerebrovascular events and possibly prevent this life-threatening toxicity.