

Anesthésie - Réanimation Divers

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Postoperative Fibrinogen Deficiency after Surgical Removal of Intracranial Tumors : Prevalence, Risk factors and prognosis

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Position du problème et objectif(s) de l'étude:

Postoperative Fibrinogen deficiency after surgical removal of brain tumor can cause potentially serious complications, such as intracranial hematoma, and worsen patient's outcome. The aim of our study was to determine the prevalence of hypofibrinogenemia after resection of intracranial tumor, to identify the risk factors for this abnormality, and to evaluate the prognosis of patients with this hemostasis disorder

Matériel et méthodes:

We conducted a prospective, descriptive study including 120 patients, scheduled for brain tumor resection, without preoperative fibrinogen deficiency and having given their consent to participate in the study. We determined the fibrinogen level the day before the procedure, at H1, and at H24 postoperatively. We determined the prevalence of postoperative hypofibrinogenemia. We collected on a pre-established grid all the factors related to the patient, the tumor and the surgery that could predict this anomaly. Postoperative complications, neurological status of the patient and mortality at three months were subsequently recorded. Data entry and processing were performed using SPSS 22® software.

Résultats & Discussion:

Forty-eight patients presented postoperative fibrinogen deficiency with high prevalence of 40%. Our study identified four predictive independent factors of fibrinogen deficiency after surgical resection of brain tumor: histological type of meningioma ($p=0,015$), prolonged duration of surgery (more than 195 minutes) ($p=0,045$), use of antiepileptic drugs preoperatively ($p=0,007$) and use of Surgicel as a hemostatic product intraoperatively ($p=0,009$). Postoperative hematoma and the sensory-motor deficit were significantly associated with postoperative fibrinogen deficiency ($p<0,001$). Patients with postoperative hypofibrinogenemia had worse GOS-E scores at discharge and after three months. On the other hand, fibrinogen deficiency after surgical removal of intracranial tumor was not significantly associated with increased postoperative mortality.

Conclusion:

We found a high prevalence of hypofibrinogenemia after brain tumor resection (40%). This anomaly increases the risk of intracranial hematoma. It therefore deserves the attention of the practitioner in order to correct it rapidly and avoid its potentially serious complications.

Les auteurs déclarent ne pas avoir toute relation financière impliquant l'auteur ou ses proches (salaires, honoraires, soutien financier éducationnel) et susceptible d'affecter l'impartialité de la présentation.