**SUMMARY OF DOCTORAL DISSERTATION'S NEW CONCLUSIONS**

Research title: “Effectiveness of External Intraventricular Drainage in Combination with Intraventricular Fibrinolysis by Alteplase in the Treatment of Intraventricular Hemorrhage with Acute Hydrocephalus”

Specialized code: 62.72.01.22 Specialization: Emergency and Critical care

PhD candidate: Luong Quoc Chinh the 30th course

Science instructors: (1) Assoc. Prof. Nguyen Van Lieu, MD., PhD.

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Training facility: Hanoi Medical University

Doctoral dissertation’s new conclusions:

Study on 80 patients admitted to the Emergency Department of Bach Mai Hospital due to intraventricular hemorrhage with acute hydrocephalus who were undergone ventriculostomy to drain CSF externally from 11/2011 to 12/2014 was aimed to evaluate the effectiveness of external intraventricular drainage (EVD) in combination with intraventricular fibrinolysis (IVF) by Alteplase in the treatment of intraventricular hemorrhage with acute hydrocephalus. Patients were selected in two groups: EVD without IVF (control, n=45) and EVD with IVF by 1 mg Alteplase every 8 hours (interventional group, n=35). **Results**: A good result (mRS = 0 - 3) at 1 month in the control group was (6.7%) lower significantly than that in the interventional group (28.6%) (p < 0.05); and the good results (GOS: = 3 - 5) also improved significantly in the interventional group at 1 month (control: 24.4%; interventional group: 74.3%; p < 0.01) and at 3 months (control: 42.3%; interventional group: 90.3%; p < 0.01). Mortality rates in the control group were higher significantly than that in the interventional group at 1 month (42% and 11.4%, respectively; p < 0.01) and 3 months (62.2% and 20%; respectively, p < 0.01). There was no difference in complication between two groups in intracerebral rebleeding (control: 11,1%; interventional group: 5,7%, p > 0.05), catheter-induced hemorrhage (control: 2,2%; interventional group: 5,7%, p > 0.05), catheter occlusion (control : 17,8%; interventional group: 5,7%, p > 0.05), ventriculitis (control: 8,9%; interventional group: 8,6%, p > 0.05) chronic hydrocephalus (control: 0%; interventional group: 8,6%, p > 0.05). **Conclusions**: Our results showed that external intraventricular drainage in combination with intraventricular fibrinolysis by Alteplase in the treatment of intraventricular hemorrhage with acute hydrocephalus improved significantly outcomes and mortality rates as well had an acceptable safety profile compared to control group.

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