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The study of correlative factors when acute cerebral hemorrhage happens complicated with cerebro-cardiac syndrome

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Abstract

Objective: To explore the correlative factors when acute cerebral hemorrhage happens complicated with cerebro-cardiac syndrome.

Methods: Give a retrospective analysis for 112 patients suffering acute cerebral hemorrhage treated in the EICU of Shengjing Hospital affiliated to China Medical University from 2013 March to 2014 March. The diagnosis is according to treatment guide of spontaneous intracerebral hemorrhage in adults (2007) , confirmed diagnosis is according to the CT in the head. Divide the patients into two groups according to the course of treatment: (1) CCS group: 30 males and 27 females, aged 38-86 years, mean (57.0 ± 18.1) years old, consonant with diagnostic criteria of CCS: ①no history of heart diseases before the disease, intracerebral hemorrhage occurs with myocardial ischemia, myocardial infarction, and (or) arrhythmia symptoms and corresponding changes in ECG or myocardial enzymes and cardiac ultrasound abnormalities. ② suffering heart diseases before intracerebral hemorrhage, cardiac symptoms get worse after intracerebral hemorrhage, or ECG appears new changes, and (or) myocardial enzymes and echocardiographic abnormalities increase. (2) Non-CCS group: 31 males and 24 females, aged 35-87 years, mean (60.7 ± 15.3) years old. For 57 CCS patients and 55 non-CCS patients, compare with the age, temperature, days of fever , blood pressure, myocardial enzymes, TnI, blood saccharide, blood routine test, ECG , the Glasgow score, amount of cerebral hemorrhage, and the statistics correlation is analyzed.

Results: The temperature, days of fever, CKMB, blood saccharide, count of WBC, amount of cerebral hemorrhage are much higher in CCS group than in non-CCS group ($P < 0.05$). The Glasgow score is lower in CCS group than in non-CCS group. For both groups, the age, blood pressure, CK, TnI, fibrinogen, amount and part of hemorrhage have no

severe differences. For the part of hemorrhage, X2 test shows : X2=4.369, ν=4, α=0.05, P>0.05, thus the difference between CCS group and non-CC S group is no significance. Logistic regression analysis of correlative parameters shows that days of fever(X1), count of WBC(X2), fibrinogen(X3), CKMB(X4), blood saccharide(X5), amount of cerebral hemorrhage(X6), time of hemorrhage(X7) are significant in statistics, the regression equation is: Logit(P) =62.599-0.831X1-0.316X2-0.306X3-0.062X4-0.446X5-0.127X6 -0.120X7, P<0.05, thus the model fits well. Tracing analysis shows the relative effection of each independent variable to the regression equation. Of all the independent variables, amount of cerebral hemorrhage and days of fever contribute to the happening of CCS after cerebral hemorrhage.

Conclusions: Patients suffering intracerebral hemorrhage if appear high temperature, long days of fever, high CKMB, high blood saccharide, high count of WBC, large amount of cerebral hemorrhage and low Glasgow score, thus indicates that acute cerebral hemorrhage happens more easily with cerebro-cardiac syndrome and poor prognosis. Amount of cerebral hemorrhage and days of fever contribute to the happening of CCS after cerebral hemorrhage.