Assessment of intraoperative coagulation status in patients undergoing cytoreductive surgery and hyperthermic intraperitoneal chemotherapy using thromboelastography

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**OBJECTIVE:** To investigate the value of thromboelastography in evaluating the coagulation function of patients undergoing cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC). hyperthermic intraperitoneal chemotherapy

**METHODS:** A total of 55 patients were selected to r cytoreductive surgery and hyperthermic intraperitoneal chemo therapy in Beijing Shijitan Hospital from January 2020 to May 2022. Perform thromboelastography monitoring before surgery (T1), at the midpoint of CRS (T2), before HIPEC (T3), after HIPEC (T4), and after surgery (T5), and compare the changes in R time, K time, A angle, and MA value at each time point.

**RESULTS:** Before hyperthermic intraperitoneal chemotherapy, compared with T1, T2 showed an increase in R (*p*>0.05), an increase in K (*p*<0.05), a decrease in A angle (*p*<0.05), and a decrease in MA (*p*<0.05); Compared with T1, T3 shows a decrease in R (*p*>0.05), an increase in K (*p*<0.05), a decrease in A angle (*p*<0.05), and a decrease in MA (*p*<0.05). After hyperthermic intraperitoneal chemotherapy, compared with T3, T5 showed a decrease in R (*p*<0.05), a decrease in K (*p*>0.05), an increase in A angle (*p*>0.05), and an increase in MA (*p*<0.05); Compared with T1, T5 shows a decrease in R (*p*<0.05), an increase in K (*p*>0.05), a decrease in A angle (*p*<0.05), and a decrease in MA (*p*<0.05); Compared with T1, T4 shows a decrease in R (*p*<0.05), an increase in K (*p*<0.05), a decrease in A angle (*p*<0.05), and a decrease in MA (*p*<0.05).

**Conclusion**: Patients who underwent cytoreductive surgery and hyperthermic intraperitoneal chemotherapy showed lower levels of fibrinogen and weaker platelet function during the cytoreductive surgery stage compared to preoperative patients. During the hyperthermic intraperitoneal chemotherapy, the activity of coagulation factors is enhanced.