Abstract Preview - Step 3/4

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Topic: 1 Anesthesia/Critical Care Medicine /Acute Liver Failure

Title: **Pre-operative thromboelastography predicts transfusion during liver transplantation**

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Text:

Background:
Orthotopic liver transplantation (OLT) can require large volumes of blood products. Identifying patients unlikely to need platelet transfusion would conserve inventory. This study demonstrates that pre-operative thromboelastography (TEG) predicts which patients will not need platelet transfusion.

Method:
IRB approval was granted for retrospective chart review of adult liver transplants (Jan2012-Jan2018). Pre-incision Maximum Amplitude (MA), K time, and Angle were compared between patients who did not receive any platelets during the transplant and those that received at least one unit of platelets. Cases with incomplete data and cases in which severe hemorrhage was due to anatomic or pathologic factors were excluded.

Results:
Ninety-one eligible patients were identified; 40 were not transfused platelets, while 51 were transfused at least one unit of platelets.

Patients that did not receive platelets were 68% male with mean age of 56 years. The mean pre-operative MA was 56.4 mm; mean K time was 2.3 minutes; mean angle was 64.8 degrees. The mean EBL was 1,182.1 mL. They received an average of: < 1 unit of cryoprecipitate; 3.1 units of red blood cells (RBCs); 2.8 units of plasma; and 303.7 mL of salvaged RBCs.

Patients that received platelets were 63% male with mean age of 54 years. The mean pre-operative MA was 43.7 mm; mean K time was 3.8 minutes; mean angle was 54.5 degrees. The mean EBL was 3,345 mL. They received an average of: 2.1 units of platelets; 1.5 units of cryoprecipitate; 8.1 units of RBCs; 9.4 units of plasma; and 883.2 mL of salvaged RBCs.

Differences in pre-operative MA, K time, and angle were statistically significant between the groups according to the T-test. MA $p < 0.0001$; K time $p = 0.0008$; angle $p = 0.0001$.

Conclusion:
Pre-operative thromboelastography MA, K time, and angle identifies transplant patients highly unlikely to need intraoperative platelet transfusion.

Preferred Presentation Type: **Poster Presentation**

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