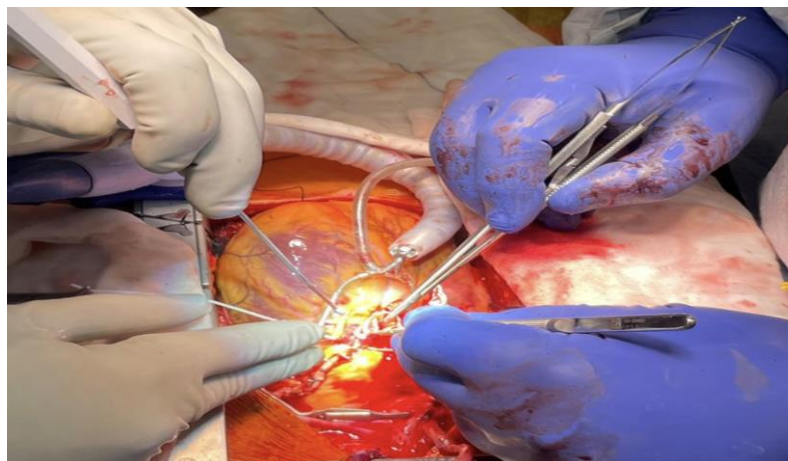


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Background

Criteria for evaluating the amount of surgical bleeding are lacking. Traditionally, evaluation of surgical bleeding was based on the surgeon's experience, which might be subjective. The 5-minute bleeding test is an objective method to evaluate the amount of bleeding, which can assist the surgeon's decision regarding when to perform sternal closure. Spending time to "dry up" at the end of an operation in cardiac surgery pays off with a lower rate of return to the operating room for bleeding and a lower transfusion rate. Somehow, the maxim of "dry going in, dry going out" is not always followed. Five minutes is an eternity for cardiac surgeons, who pride themselves on speed. The 5-minute test (FMT) has been reported to reduce reexploration following open heart surgery. We audit our practice recording the amount of pericardial bleeding in patients undergoing general cardiac surgery and determine the relationship between this test and postcardiotomy bleeding.

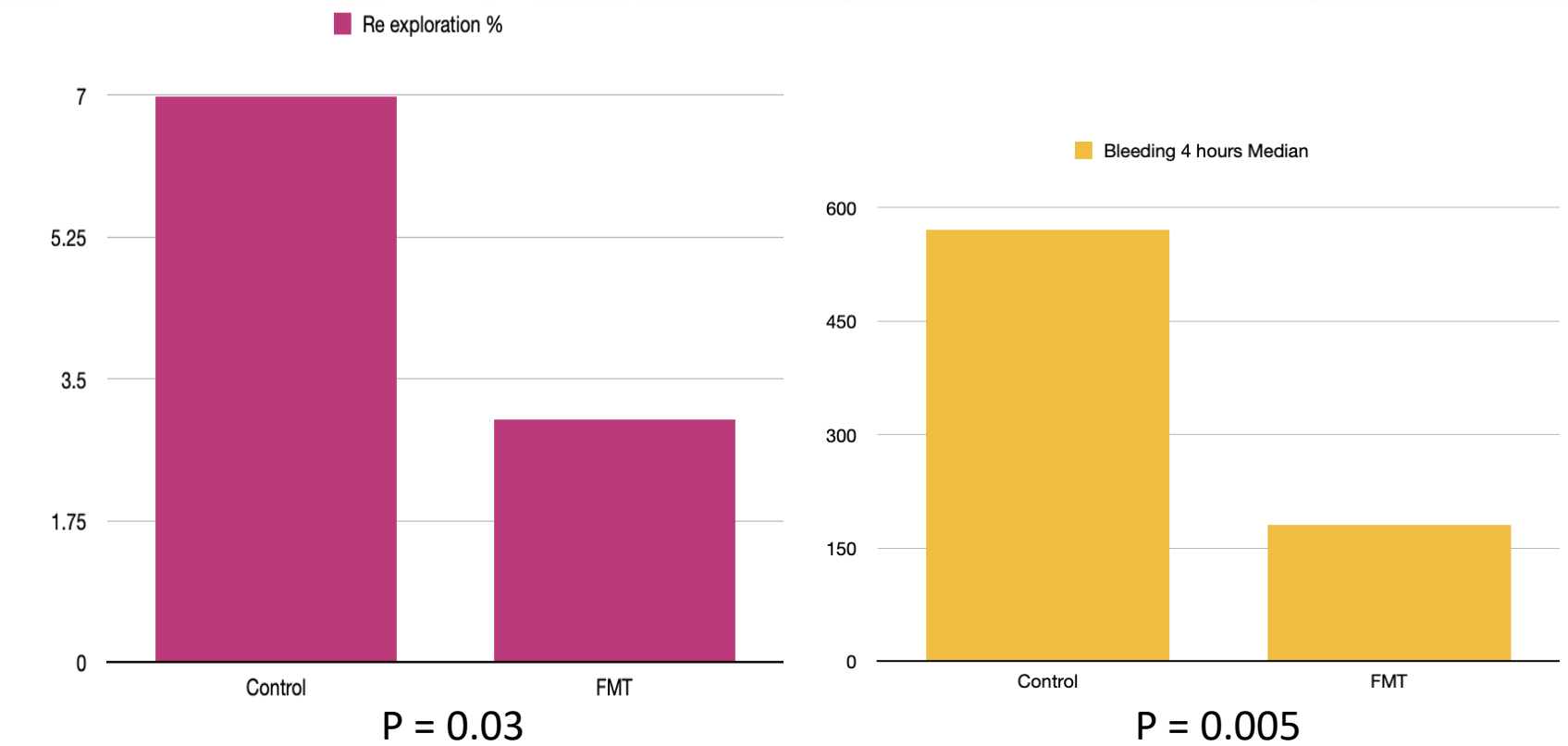


Method

The FMT group included patients who underwent general cardiac surgery between March 2022 and July 2022 (n= 66, 16% underwent complex procedures), and the control group included patients who underwent general cardiac surgery between December 2021 and March 2022 (n= 66, 12% underwent complex procedures). The postcardiotomy reexploration rate due to intrapericardial bleeding or cardiac tamponade within one week after surgery and the amount of bleeding four hours following surgery were compared. The FMT procedure involved counting the amount of bleeding by packing 10 surgical gauze sheets for 5 minutes. Sternal closure was performed when the amount of blood measured by the FMT was <100 g.

Results

Compared with the control group, the FMT group had a significantly lower incidence of postcardiotomy reexploration (n= 5/66, 7% versus n=2/66, 3%; P= 0.03) and a reduced amount of bleeding after cardiac surgery (median 571mL versus 180mL; P= 0.005). There was a significant positive correlation between the FMT gauze sheet weight and postcardiotomy bleeding with 50% reduction in blood loss and reexploration.



Conclusion

The FMT is an objective and effective tool for estimating postoperative bleeding during cardiac surgery that can prevent postcardiotomy reexploration and reduce the amount of postcardiotomy bleeding.

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