

Women with certain medical conditions such as a history of blood clots in the leg or lung or mechanical heart valves may need to take anticoagulants (heparin, warfarin, low molecular weight heparin) for many months or years. Although women who take these medications can have healthy pregnancies, many medical conditions are made worse by the stress that pregnancy places on the body. In addition, warfarin is known to cause birth defects.

Clinicians who provide abortions are sometimes faced with performing a surgical procedure on a woman who is taking an anticoagulant which could place them at a higher risk for bleeding during the procedure. The purpose of this study was to compare blood loss resulting from surgical termination of pregnancy up to 12 weeks gestation between women who were taking anticoagulants and those who were not. To our knowledge, this is the only study to address this clinical scenario.

This study took place at three sites in the United States; Oregon Health and Science University (OHSU) in Portland, Oregon, The Ohio State University (OSU) in Columbus, Ohio and the University of Hawaii in Honolulu, Hawaii. Women between the ages of 18 and 45 who were on anticoagulant medications (heparin, low molecular weight heparin, warfarin) desiring pregnancy termination at 12 weeks gestation or less were approached about study participation. We also enrolled a group of women who were not taking anticoagulant therapy (control group) and these women were matched to anticoagulated subjects based on gestational age, cesarean section history, parity (the number of children they have delivered), and anesthetic type (general anesthesia versus local anesthetic blocks). We attempted to enroll 2 control subjects for every anticoagulated subject. The sample size of 10 anticoagulated subjects and 20 control subjects was estimated to detect a 25ml difference in blood loss between the 2 groups.

Identical surgical techniques were used for both groups using standard procedures. Blood loss during and after the procedure was estimated and patients recorded the number of pads and liners they used for 1 week following the procedure. Laboratory tests were checked before and after the procedure as was blood pressure and heart rate.

Although we originally planned to recruit 10 anticoagulated subjects and 10 control subjects we were only able to recruit 4 anticoagulated subjects and 6 control subjects. There was no difference in blood loss between the anticoagulated group and the control group. The average blood loss at the time of the procedure in the anticoagulated group was 83.3 ml and the average blood loss in the control group was 42.5 ml. The difference between the two groups did not meet criteria for a statistically significant difference. None of the subjects in either group had a significant change in blood pressure, heart rate or blood count. There were two complications that occurred in the anticoagulated group including an ongoing pregnancy which required another abortion procedure and retained blood clots in the uterus. The other anticoagulated patients had uncomplicated procedures.

Because we were not able to meet our recruitment goals and were only able to study a very small number of patients, we cannot determine whether there is truly a difference in blood loss between anticoagulated women and women who are not anticoagulated. However, it is important to note that the average blood loss for women taking an anticoagulant was approximately 80 ml which is well below the level that results in medical problems for patients. As we continue to look for ways to provide abortion services in a safe, evidence based manner, more research in this area is needed.