Efek Aplikasi Asam Traneksamat Topikal Terhadap Perdarahan dan Kebutuhan Transfusi Darah Pascabedah Pintas Arteri Koroner = Effect of Topical Application of Tranexamic Acid in Postoperative Bleeding and Blood Transfusion after Coronary Artery Bypass Graft

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Abstrak

Latar belakang dan tujuan: Penggunaan asam traneksamat intravena pada bedah jantung bertujuan untuk mengurangi komplikasi perdarahan pascabedah. Asam traneksamat secara topikal (intraperikardial) bekerja secara lokal dan meminimalisasi efek samping sistemik. Penelitian ini bertujuan untuk mengetahui apakah penggunaan asam traneksamat topikal lebih efektif terhadap jumlah perdarahan dan kebutuhan transfusi darah pascabedah dibandingkan dengan plasebo pada bedah pintas arteri koroner .
Metode: Randomisasi 44 sampel menjadi kelompok asam traneksamat topikal (n = 22) dan kelompok plasebo (n = 22). Variabel dengan sebaran normal menggunakan statistik independent t-test, sedangkan data dengan sebaran tidak normal menggunakan statistik nonparametrik Mann-Whitney test.
Hasil: Perdarahan inisial (asam traneksamat 47,50 (10-105) mL vs plasebo 75 (10-160) mL menunjukkan p = 0,012), perdarahan 6 jam pascabedah (asam traneksamat 135,50 (80-285) mL vs plasebo 190 (35-480) mL menunjukkan p = 0,021, kebutuhan transfusi trombosit (asam traneksamat 0(0-136) mL vs plasebo 0(0-993) menunjukkan p = 0,027), dan kebutuhan transfusi kriopresipitat (asam traneksamat 0(0-0) mL vs plasebo 0 (0-347) menunjukkan p = 0,034).
Simpulan: Asam traneksamat topikal efektif mengurangi perdarahan, dan kebutuhan transfusi darah pascabedah pintas arteri koroner.
.....Background and purpose: Administration of intravenous tranexamic acid in cardiac surgery aimed to reduce postoperative bleeding complications. Tranexamic acid topically (intrapericardially) works locally and minimizes systemic side effects. This study aims to determine whether topical tranexamic acid is more effective on the amount of bleeding and the need for postoperative blood transfusion compared with placebo in patients undergoing CABG on-pump surgery. This study aims to determine whether topical tranexamic acid is more effective in reducing postoperative bleeding and decreasing postoperative blood transfusion compared to placebo in patients underwent on-pump CABG.
Methods: 44 samples are randomized into the tranexamid acid group (n = 22) and the placebo group (n = 22). Variables with normal distribution were carried out with independent t-test statistical analysis, whereas data with abnormal distribution were analyzed using nonparametric statistics Mann-Whitney test.
Result: Postoperative bleeding and transfusion in the tranexamic acid group compared to the placebo group showed differences as follows: initial bleeding (tranexamic acid 47.50 (10-105) mL vs. placebo 75 (10-160) mL, p = 0.012), 6 hours postoperative bleeding (tranexamic acid 135.50 (80-285) mL vs. placebo 190 (35-480) mL, p = 0.021), Postoperative bleeding requiring platelet transfusion (tranexamic acid 0(0-136) mL vs. placebo 0(0-993), p = 0.027), and postoperative bleeding requiring cryoprecipitate transfusion (tranexamic acid 0(0-0) mL vs. placebo 0 (0-347), p = 0.034).
Conclusion: Topical tranexamic effectively reduces postoperative bleeding and minimize postoperative blood transfusion in CABG.