

Penggunaan papaverin sebagai vasodilator pada intususepsi dengan model tikus putih = Papaverin as vasodilator in rats intussusception model / Kshetra Rinaldhy

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20446318&lokasi=lokal>

Abstrak

Komplikasi kebocoran anastomosis dan panjangnya reseksi usus non vital pada kasus intususepsi masih menjadi permasalahan. Tujuan: Mengetahui pengaruh NaCl 0.9 dan papaverin terhadap derajat kolagen serta kejadian komplikasi kebocoran anastomosis usus yang mengalami intususepsi pada model tikus putih. Metode: Dilakukan laparotomi pada 21 tikus Sprague-dawley untuk membuat model intususepsi. Setelah 45 menit, dilakukan relaparotomi dan reduksi manual intususepsi. Tikus dibagi 3 kelompok secara random: kelompok A tanpa perlakuan, kelompok B aplikasi NaCl 0,9 hangat, kelompok C aplikasi papaverin di daerah usus yang mengalami strangulasi. Kemudian dilakukan reseksi dan anastomosis pada zona usus yang vitalitasnya meragukan. Setelah hari ke-5 dilakukan laparotomi ulang, dinilai secara subjektif ada tidaknya kebocoran anastomosis, dan diambil sampel untuk dinilai grade kolagennya secara mikroskopik dengan parameter Philips. Hasil: Kadar kolagen tertinggi pada kelompok C dan tidak ada kebocoran anastomosis pada kelompok ini. Lima ekor tikus dengan kolagen terendah pada kelompok A dan B, seluruhnya mengalami perforasi. Tikus dengan kolagen grade 3 dan 4 tidak ada yang mengalami perforasi. Perlakuan aplikasi NaCl 0.9 dan papaverin tidak bermakna secara statistik terhadap kejadian perforasi namun bermakna terhadap kadar kolagen.Background In operative management of intussusception case, the most common complication is anastomosis leakage. Many factors influenced the anastomosis leakage and we concern the collagen factor which important in anastomosis wound healing process. We performed experimental study using topical 0.9 warm saline and papaverine at the released intussusceptum bowel. Aim To study the effect of topical saline and papaverin application in collagen grading and anastomosis leakage incident in rats intussusception model. Methods laparotomy was performed in 21 Sprague dawley rats to create the intussusception model. After the bowel considered ischemic, de strangulation with retrograde milking technique were performed. Rats were randomly divided in 3 groups A, control group B, saline group and C, papaverine group. We gave topical saline or papaverine at the mesenterium of the released intussusceptum bowel then resected and anastomosed the questionable vitality of bowel. After 5 days, the anastomosis leakage were subjectively assessed. The anastomose segment were sampled for measuring the collagen grading Phillips .Results Collagen grade of the group C was the highest among other groups and no anastomosis leakage in this group. There were 5 rats with collagen grade 1 and 2 in group A and B, and all 5 anastomosis site were perforated. There is no statistically relation between saline or papaverine application and the leakage events, but the application were significantly effect the collagen grading. Conclusion Findings suggest that saline and papaverine increase the collagen grading and the grading decrease the anastomosis leakage incidents. Key words intussusception, collagen, anastomosis leakage, normal saline, papaverine.