ABSTRAK

Latar Belakang: Obstruksi pada intestinal merupakan kasus yang sering terjadi, menyebabkan peningkatan tekanan intraluminal usus. Obstruksi menyebabkan perubahan anatomi dan fisiologi usus. Dekompresi segera adalah tatalaksana standar pada obstruksi intestinal untuk mengurangi angka morbiditas dan mortalitas.

Tujuan: Untuk mengetahui pengaruh dekompresi terhadap perbaikan tingkat kerusakan mukosa kolon pada obstruksi kolon tikus albino galur wistar (*Rattus norvegicus*).

Metode: Penelitian ini menggunakan metode eksperimental *post test only* dengan melibatkan 30 ekor Tikus Albino Galur Wistar. Tikus dibagi menjadi tiga kelompok, yaitu tikus dengan peningkatan tekanan intraluminal (obstruksi), tikus dengan tekanan intraluminal dan dilakukan dekompresi, dan kontrol (tanpa perlakuan). Penelitian dilakukan di Laboratorium Pusat Antar Universitas (PAU) dan Laboratorium Patologi Anatomi FKKMK UGM untuk dilakukan pembacaan preparat dengan kriteria *Chiu*. Penelitian menggunakan teknik acak sederhana dan analisis data dengan *Chi Square* menggunakan SPSS versi 21.0.

Hasil: Pada penelitian menunjukkan derajat kerusakan mukosa pada subyek yang dilakukan obstruksi lebih tinggi dibandingkan pada dekompresi dan kontrol. Perbandingan derajat kerusakan mukosa usus kolon pada subyek obstruksi dan dekompresi berbeda namun tidak signifikan (p=0.87), obstruksi dibandingkan kontrol berbeda signifikan (p=0.022), dan dekompresi dibandingkan kontrol berbeda namun tidak signifikan (p=0.45).

Kesimpulan: Peningkatan tekanan intraluminal kolon >20 mmHg menyebabkan kerusakan mukosa kolon yang membaik setelah dilakukan dekompresi namun tidak signifikan setelah dinilai dalam 24 jam pasca dekompresi.

Kata kunci: obstruksi, dekompresi, tekanan intraluminal usus, kerusakan mukosa

THE EFFECT OF DECOMPRESSION ON IMPROVING THE LEVEL OF COLON MUCOSA DAMAGE IN COLON OBSTRUCTION OF WISTAR STRAIN ALBINO RATS (*Rattus norvegicus*)

ABSTRACT

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Background: Intestinal obstruction is a frequent case, causing an increase in intestinal intraluminal pressure. Obstruction causes changes in intestinal anatomy and physiology. Immediate decompression is the standard treatment for intestinal obstruction to reduce morbidity and mortality.
Objective: To determine the effect of decompression on improving the level of colonic mucosal damage in colonic obstruction of Wistar albino rats (Rattus norvegicus).
Method: This research used a post test only experimental method involving 30 Albino Wistar Rats. Mice were divided into three groups, namely mice with increased intraluminal pressure (obstruction), mice with intraluminal pressure and decompression, and controls (without treatment). The research was carried out at the Inter-University Central Laboratory (PAU) and the Anatomical Pathology Laboratory to read preparations using Chiu's criteria. The research used a simple random technique and data analysis with Chi Square using SPSS version 21.0.
Results: The research showed that the degree of mucosal damage in subjects who underwent obstruction was higher than those in decompression and controls. Comparison of the degree of damage to the colonic intestinal mucosa in obstruction and decompression subjects was different but not significant (p=0.87), obstruction compared to controls was significantly different (p=0.022), and decompression compared to controls was different but not significant (p=0.45).
Conclusion: An increase in colonic intraluminal pressure >20 mmHg causes damage to the colonic mucosa which improves after decompression but is not significant when assessed within 24 hours after decompression.

Keywords: obstruction, decompression, intestinal intraluminal pressure, mucosal damage