

## INTISARI

### **KORELASI DIANTARA KADAR KREATININ SERUM DENGAN FIBROSIS HATI DAN PENURUNAN KADAR ALBUMIN SERUM PADA MENCIT SETELAH PROSEDUR 5/6 NEFREKTOMI**

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**Latar Belakang:** Fibrosis hati yang berlarutan bisa menyebabkan penyakit hati tahap lanjut. Salah satu efek penyakit hati tahap lanjut adalah sindrom hepatorenal. Mekanisme sindrom hepatorenal sudah diteliti dan dikaji secara meluas. Tapi, cuma sedikit bahkan hampir tiada yang diketahui dari keterbaliknya sindrom hepatorenal; efek gagal ginjal terhadap hati.

**Tujuan:** Penelitian ini dilakukan bagi mencari tahu kewujudan korelasi diantara kadar kreatinin serum dengan fibrosis hati dan juga penurunan kadar albumin serum pada mencit setelah prosedur 5/6 nefrektomi.

**Metode:** 15 mencit jantan berlatar belakang Swiss melalui prosedur 5/6 nefrektomi dan dikelompokkan ke dalam kelompok Sham Operation (SO, n=5), kelompok prosedur 5/6 nefrektomi dan diterminasi pada hari ke-7 (W1 N, n=5), dan kelompok 5/6 nefrektomi dan diterminasi pada hari ke-28 (W4 N, n=5). Sampel darah diambil dan kadar kreatinin dan kadar albumin diukur. Fibrosis hati dinilai menggunakan skor Batts dan Ludwig setelah preparat dicat dengan Sirius Red. Data dianalisis menggunakan test korelasi Pearson.

**Hasil:** Tiada korelasi diantara kreatinin serum dan fibrosis hati ( $p > 0,05$ ). Tiada korelasi diantara kreatinin serum dan albumin serum ( $p > 0,05$ ). Bagi albumin serum dan fibrosis hati, terdapat korelasi dengan  $p < 0,05$ .

**Kesimpulan:** Tiada korelasi diantara kreatinin serum dengan fibrosis hati dan penurunan kadar albumin serum pada mencit setelah prosedur 5/6 nefrektomi.

**Kata kunci:** 5/6 nefrektomi, kreatinin serum, fibrosis hati, albumin serum, Sirius Red, Batts dan Ludwig.

**ABSTRACT**

**CORRELATION BETWEEN SERUM CREATININE LEVEL WITH LIVER FIBROSIS AND DECREASING SERUM ALBUMIN LEVEL AFTER 5/6 NEPHRECTOMY IN MICE**

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**Background:** Prolonged liver fibrosis may lead to many advanced liver disease. One of the consequences of advance fibrosis is hepatorenal syndrome. The mechanism of hepatorenal syndrome is widely researched and observed. But, little and almost nothing is known on the vice versa of hepatorenal syndrome; effect of kidney failure on the liver.

**Aim:** This research was conducted to find out presence of correlation between serum creatinine level and the liver fibrosis as well as decreased in serum albumin level in mice after 5/6 nephrectomy was performed.

**Method:** 15 male Swiss background mice undergo 5/6 nephrectomy procedure and grouped into Sham Operation (SO, n=5) group, 5/6 nephrectomy procedure and sacrificed on day 7 (W1 N, n=5) group, and 5/6 nephrectomy procedure and sacrificed on day 28 (W4 N, n=5) group. Blood sample was obtained and measured for serum creatinine and serum albumin level. Liver fibrosis was assessed by Batts and Ludwig scoring method after the specimen was stained with Sirius Red. The data was analyzed by Pearson Correlation test.

**Result:** There was no correlation between serum creatinine and liver fibrosis ( $p > 0, 05$ ). There was no correlation as well between serum creatinine and albumin ( $p > 0, 05$ ). For the serum albumin and liver fibrosis, there was correlation ( $p < 0, 05$ ).

**Conclusion:** There is no correlation between serum creatinine with liver fibrosis and decreasing serum albumin level in 5/6 nephrectomy mice model.

**Keywords:** 5/6 nephrectomy, serum creatinine, liver fibrosis, serum albumin, Sirius Red, Batts and Ludwig.