

Perbandingan Ukuran Makroskopis dan Ultrasonografi Ginjal Kanan Tikus Putih Pasca Ligasi Ureter Kanan Proksimal

INTISARI

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Obstruksi saluran urinaria merupakan masalah yang sering muncul pada sistem urinaria. Obstruksi tersebut akan mengakibatkan hidronefrosis yang menyebabkan gangguan fungsi ginjal. Metode diagnosis yang tepat merupakan kunci untuk mengatasi kejadian hidronefrosis dengan cepat sehingga kerusakan ginjal dapat diminimalisir. Ultrasonografi dinilai sebagai salah satu metode yang dapat digunakan untuk mendiagnosis kejadian hidronefrosis karena dapat memberikan gambaran dan ekogenitas ginjal dengan cepat, mudah dan aman. Penelitian ini bertujuan untuk mengetahui kondisi ginjal dan perbandingan ukuran ginjal pasca ligasi ureter kanan proksimal dari waktu ke waktu, serta mengetahui perbandingan ukuran ginjal secara makroskopis dan ultrasonografis. Dua belas ekor tikus putih dibagi menjadi empat kelompok: Kelompok I merupakan tikus yang tidak mendapat perlakuan, Kelompok II mendapat perlakuan ligasi ureter kanan sampai hari ke-7, Kelompok III mendapat perlakuan ligasi ureter kanan sampai hari ke-14 dan Kelompok IV mendapat perlakuan ligasi ureter kanan sampai hari ke-21. Pengukuran organ ginjal dilakukan secara ultrasonografi dan makroskopis menggunakan *Vernier caliper* secara eksitu setelah tikus dikorpsi. Data yang diperoleh dianalisis secara statistik menggunakan Anova dan T-test pada program SPSS 16.0 dan penilaian deskriptif. Hasil penelitian menunjukkan adanya perubahan parenkim ginjal yang semakin tipis dan bergelombang. Ukuran ginjal juga mengalami perubahan yang signifikan ($P < 0,05$) dari waktu ke waktu, tapi tidak ada perbedaan yang signifikan dari perbandingan pengukuran ginjal secara makros dengan ultrasonografi ($P > 0,05$).

Kata kunci: ginjal, obstruksi ureter, hidronefrosis, ultrasonografi

Comparison between Macroscopic and Ultrasonography Size of Laboratory Rats After Right Ureter Ligation

ABSTRACT

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Urinary tract obstruction is a common disorder in sistema urinaria. Obstruction can cause hydronephrosis which disturbs the kidney's function. A proper diagnosis method would be the key to treat hydronephrosis fast enough in order so that the kidney would suffer less damage. Ultrasonography is considered as one the method to diagnose hydronephrosis for it would provides the kidney's overview and exogenity in considerably short amount of time, easy and yet safe. The aim of this research's was to know the kidney's condition and size comparison after proximal right ureter ligation from time to time, and to know the comparison between macroscopic and ultrasonographic kidney's size. Twelve rats were used and divide into four groups: Group I were the female laboratory rats without any specific treatment. Group II were the female laboratory rats that received right kidney ligation up to day-7. Group III were the female laboratory rats that received right kidney ligation up to day-14. Group IV were the female laboratory rats that received right kidney ligation up to day-21. Kidney measurement were done by ultrasonography and macroscopic exitu by *Vernier capiler* after the rats undergo necropcy. The data collected were analyzed statistically using Anova and T test on SPSS 16.0 program and descriptive scoring. The result showed changes in kidney parenchyme which appears to be thinner and wavy. The kidney's size also showed significant changes ($P < 0,05$) from time to time, but there were not any significant differences of the comparison between kidney measurement macroscopically and using ultrasonography ($P > 0,05$).

Keywords: kidney, ureter obstruction, hydronephrosis, ultrasonography