

# KSN 2016 Abstract Submission

*Clinical Nephrology*

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**which factors relate to the renal cortical defect in infants under 3 months old with urinary tract infection?**

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**Background:** To identify predicting factors for renal scarring in <sup>99m</sup>Techetium-dimercaptosuccinic acid (DMSA) scintigraphy performed in young infants under 3 months old with urinary tract infection (UTI).

**Methods:** Infants under 3 months old with culture-proven UTI in a single center from March 2010 to February 2016 were reviewed retrospectively. Prior to antibiotic therapy, blood samples were obtained for laboratory evaluation. The therapeutic delay time (TDT), and therapeutic response time (TRT) were recorded. All patients were divided into two groups according to the defect of DMSA scan (Group 1 : negative, Group 2 : positive). Two groups were compared regarding to demographic, clinical, laboratory characteristics.

**Results:** A total of 119 infants (96 males and 23 females; mean age, 56.9 ± 21.3 days) were included. Cortical defect in DMSA scan was 47 cases (39.5%). Infants in group 2, peak temperature (38.4 ± 0.80°C vs 38.9 ± 0.57°C,  $P=0.001$ ), ANC (7290 ± 4090 mm<sup>3</sup> vs 8920 ± 4460mm<sup>3</sup>,  $P=0.043$ ), CRP (3.21 ± 2.81mg/dL vs 6.49 ± 4.33mg/dL,  $P=0.001$ ) levels were significantly higher than in group 1, but albumin level was lower in group 2 (3.77 ± 0.39g/dL vs 3.63 ± 0.28g/dL,  $P=0.029$ ). And TDT was also longer in group 2 ( $P=0.037$ ). There were no differences in age, gender, WBC, species of organisms, renal sonographic abnormality, and vesicoureteral reflux between two groups.

**Conclusion:** Maximum temperature, ANC, CRP, albumin level might be factors in predicting cortical defect of DMSA scan in UTI of young infants under 3 months old. Longer TDT values are significantly associated with cortical defect

**Keywords:** None