Renal Medullary Ischemia
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History
11 day old premature infant with oliguria.

Diagnosis
Renal Medullary Ischemia

Discussion
Diminished renal function due to renal ischemia is not an uncommon occurrence in stressed neonates in intensive care units who have experienced hypoxic or ischemic events. Impaired renal perfusion may lead to abnormalities of the pyramids, cortex, or renal vasculature, which include changes such as acute tubular necrosis, medullary or cortical necrosis, and renal vein thrombosis. With hypoxic-ischemic events, the medullary pyramids become heterogeneously hyperechoic and corticomedullary differentiation decreases.

Findings
US-Longitudinal and transverse images of the right and left kidneys demonstrate heterogeneous increased echogenicity of the pyramids. There is a hypo-echoic band around the periphery of each pyramid and an anechoic central region extending down into the papilla.

Reference
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