

Fetal monolateral urinoma and neonatal renal function outcome in posterior urethral valves obstruction: the pop-off mechanism.

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The "fetal urinoma" is a clinical and diagnostic entity due to urinary extravasation, early diagnosed in fetal and/or neonatal period. Both urinoma and urinary ascites, whose pathogenesis is not clear, are recognized associations of uterero-pelvic junction obstruction (UPJO) and neonatal posterior urethral valves (PUV) related with a protected fetal and neonatal renal function. Clinical and experimental studies have demonstrated that fetal urinary tract obstruction results in severe renal parenchymal injury. The so called "pop-off" valve mechanism has been advocated to justify the upper tract function preservation. Protective "pop-off" mechanisms, such as a unilateral reflux and dysplasia, urinary extravasation and congenital bladder diverticula are present in about 30% of patients with PUV. Their presence correlates with better overall long-term renal function. This mechanism has been justified as a sort of self derivation, to explain the renal function preservation in fetal and neonatal period. In the last two years we observed three cases of fetal monolateral urinoma, prenatally detected in fetuses with diagnosis of PUV. All three cases did well for that concerning renal function despite some current opinions suggesting the necessity of a bilateral urinary extravasation in order to preserve upper urinary tract function.