

MMU can well predict the occurrence of UUTD in children with NB, and filling SWV has the highest prediction efficiency.

1. Independent Risk Factors & Optimal Predictor

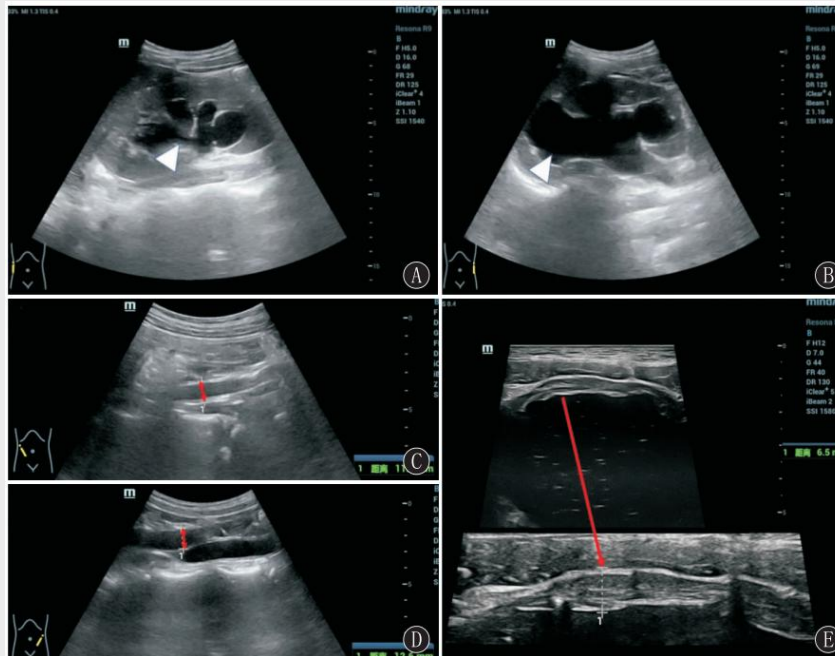
-Core innovation: Filling SWV acts as the best predictive biomarker.

-Cut-off value: 3.33 m/s | Sensitivity: 72.34% | Specificity: 92.50%.

2. Clinical Interpretation

- UUTD induces definite renal function damage and typical bladder lesions (thickened bladder wall, declined compliance, abnormal perfusion) in NB children.

- Filling SWV can effectively reflect bladder wall fibrosis and stiffness, enabling accurate prediction of UUTD occurrence.



A 6-year-old UTDD boy was diagnosed with spinal bifida apertum. MMU parameters: A, B. Hydronephrosis (Δ) with the right APD(A) and left APD(B) were 24.90mm,12.60mm respectively ; C, D. Bilateral ureter widened ($\square$) with the right UD (C) and the left UD (D) were 11.60 mm and 12.60 mm respectively; E. BWT was 6.2mm; F. filling SWV was 3.33 m/s; G. emptying SWV was 2.03m/s; H. the left wall RI was 0.68; I. VI was 8.64 %; Δ C was 46 mm²·s. UDS parameters(J): The bladder compliance was poor, BC was 3mL/cmH₂O, MCC was 113mL, DLPP was 50 cmH₂O, Pdet.max was 50cmH₂O, and there was no active contraction of detrusor.