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Normal pelvic ultrasound or MRI does not rule out neoplasm in patients with gonadal dysgenesis and Y chromosome material

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Summary *Introduction:* Patients with gonadal dysgenesis (GD) with a Y chromosome have an increased risk of gonadal neoplasm. Few data exist on the ability of imaging to detect malignancy in intra-abdominal gonads in these patients.
Objective: We aimed to determine the correlation between preoperative imaging findings and gonadal pathology in GD patients with Y chromosome material.
Methods: A retrospective review was performed of patients with XY or XO/XY GD who underwent gonadectomy at our institution from 2003 to 2017. Patients were assessed preoperatively with ultrasonography; some additionally underwent MRI.
Results: The series consisted of 10 patients, all with female gender and non-palpable gonads. Median age was 13.1 years (range 2.4–18.3 years). Overall, four of the ten patients (40%) had a tumor (gonadoblastoma or dysgerminoma) on final pathology. Four patients had a gonad or gonads that were definitively seen on ultrasonography. All visualized gonads were described as "normal" or "small" with the exception of one patient, who had a normal MRI. Three of the four patients in this group had a tumor on final pathology. The remaining six patients had a gonad or gonads that were not