Objectives
To study the application of transperineal pelvic floor ultrasound in the diagnosis of female urethral lesions.

Methods
From August 2015 to March 2019, female patients with urinary symptoms underwent pelvic floor ultrasound, which includes 2DUS and 4DUS, examined in resting, contraction, Valsalva state, respectively. Patients with urethral neoplasms were enrolled and without pathological results were excluded. The lesions need to be observed at the location (including proximal, middle or distal urethra, and urethral orientation, and distance from the external urethral orifice), size (maximum diameter), echo, distribution of blood flow, whether connected to the urethra.

Results
A total of 30 patients and 31 lesions were enrolled in the study. All patients underwent pelvic floor ultrasonography successfully. Ultrasonography diagnosis included urethral diverticulum 14 cases, urethral polyp 10 cases, urethral cyst 6 cases, urethral myoma 1 case.

Pathological results showed that the accuracy rate was 96.77% (30/31). In addition, 4DUS can show the continuity of urethral sphincter disruption in urethral diverticulum (Fig. 1), and urethral sphincter dilation with good continuity in urethral polyp or urethral myoma. It can also show the number and orientation of urethral diverticulum openings, which is helpful to find diverticulum openings during surgery.

Conclusion
Transperineal pelvic floor ultrasound is meaningful in the detection and identification of diverticulum, cyst and solid mass. It can also provide some unexpected information, such as the orientation and openings of diverticulum.