

EP13.30. Establishment of normal reference range of vaginal wall parameter in women of fertile age using biplane transrectal ultrasonography

Xinyan Li . Maternity and Child Health Care of Guangxi Zhuang Autonomous Region, Nanning, China

Objectives

The objective of this study is to establish the reference ranges of total vaginal wall thickness, length and vaginal rugae in normal childbearing period women using the novel transrectal dual-plane high-frequency probe.

Methods

A prospective cross-sectional study was undertaken involving 280 women of fertile age who had a pelvic ultrasound. Transrectal biplane high-frequency ultrasound technique were utilized to assess total vaginal wall thickness, length, and rugae at the Maternal and Child Health Hospital of the Guangxi Zhuang Autonomous Region. Normal reference ranges of the above measurements were established. 50 cases were randomly selected to calculate inter-observer agreement. In addition, the relationship between the above measurements with age, height, weight, body mass index (BMI) and number of normal deliveries were also assessed.

Results

1. The normal reference range of total vaginal wall thickness, length, and number of rugae were 12.09 ± 2.13 mm, 5.58 ± 1.04 cm, and 9.32 ± 2.95 , respectively. 2. The inter-observer agreement of vaginal wall parameter were excellent. 3. Negative correlation between the length of vaginal wall, the number of rugae and age had high significance ($P<0.05$, respectively), while the rest of the vaginal wall parameters had no significant correlation with the relevant indicators.

Conclusion

The normal vaginal wall reference range in women of fertile age by transrectal biplane high-frequency ultrasound have established. It was found that vaginal length and rugae were negatively correlated with age, which was useful in clinical assessment of women's vaginal condition.

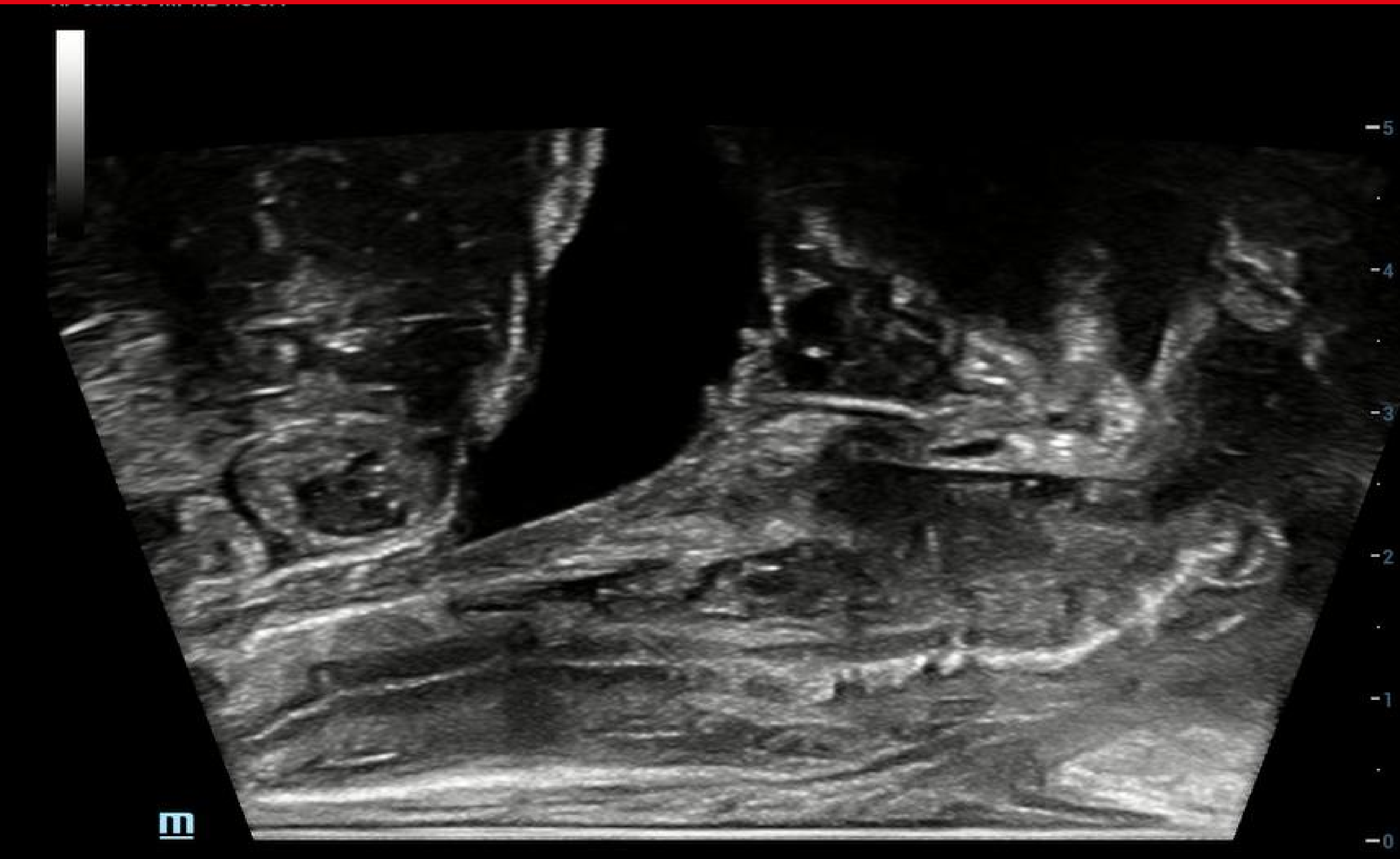


Figure 1. Transrectal ultrasonography demonstrates the longitudinal cross-section of the vaginal wall.



Figure 2. Transrectal ultrasonography demonstrates the transverse cross-section of the vaginal wall.