Objective

The aim of this study was to evaluate the accuracy, sensitivity, specificity, positive predictive value, and negative predictive value of transvaginal sonography for the preoperative detection of leiomyoma, adenomyosis, or combined compared to the histopathological findings of symptomatic women.

Methods

Retrospective cohort study of consecutive symptomatic patients diagnosed with leiomyoma, adenomyosis, or combined via transvaginal ultrasound (TVS) and underwent hysterectomy. The TVS was made according to the consensus statement of the Morphological Uterus Sonographic Assessment (MUSA) group, used the sonographic features of the myometrium.

Results

Of 222 symptomatic patients with the diagnosis of leiomyoma, adenomyosis comprising 155 patients with leiomyoma, 48 women with adenomyosis and 19 patients with combined leiomyoma and adenomyosis. Sensitivity, specificity, positive and negative predictive value, and test accuracy for transvaginal sonography detecting leiomyoma were 95%, 42%, 67%, 87% and 72% respectively, adenomyosis were 79%, 84%, 58%, 93% and 93% respectively, combined were 19%, 93%, 47%, 81% and 57% respectively.

Conclusion

This study demonstrated that TVS is effective noninvasive method for the presurgical diagnosis of leiomyoma and adenomyosis. TVS is most sensitive for the detection of leiomyoma. However, the specificity of TVS is superior for the detection of adenomyosis and combined cases with leiomyoma and adenomyosis.