CONCLUSION

Women with adenomyosis who have symptoms of HMB and dysmenorrhea, were observed to have significantly higher JZ indices and ill defined junctional zones. 3D ultrasound can accurately evaluate and measure JZ indices by obtaining the coronal section of the uterus. It can be an invaluable tool and adjunct to 2D-TVS, not only in diagnosing adenomyosis, but in determining the possible stage and severity of disease. Once clear criteria have been established for such staging, clinician can set up protocols for monitoring and managing the disease.

OBJECTIVES

To determine relationship of 3D ultrasound measurements of junctional zone (JZ) indices among women with adenomyosis with symptoms of heavy menstrual bleeding (HMB) and dysmenorrhea versus those women with adenomyosis but without symptoms.

METHODOLOGY

This is a prospective cross sectional analytical study including women with adenomyosis who satisfied the study’s inclusion and exclusion criteria. Women underwent clinical interview, recording subjective and objective perceptions of symptoms of HMB and dysmenorrhea using the pictorial bleeding assessment chart and pain visual analogue scale/numerical rating scale chart respectively. 2D and 3D transvaginal (TVS) ultrasound were carried out on all subjects. The following 3D Junctional zone indices were measured on all women with or without symptoms of adenomyosis; maximum (JZmax) and minimum junctional zone (JZmin), junctional zone difference (JZ diff), maximum myometrial thickness (MMT), junctional zone ratio (JZratio) and alterations of the junctional zones were also observed.

RESULTS

155 women enrolled in the study were grouped based on the presence (n=103) or absence (n=52) of symptoms of HMB and dysmenorrhea. At 3D-TVS assessment, women with symptoms of adenomyosis had significantly higher values of JZmax, JZ diff, MMT and JZ ratio compared to those without symptoms. The 3D-TVS criteria diagnostic of adenomyosis based on previous studies as well as the presence of ill defined junctional zone were significantly observed in the symptomatic group.