

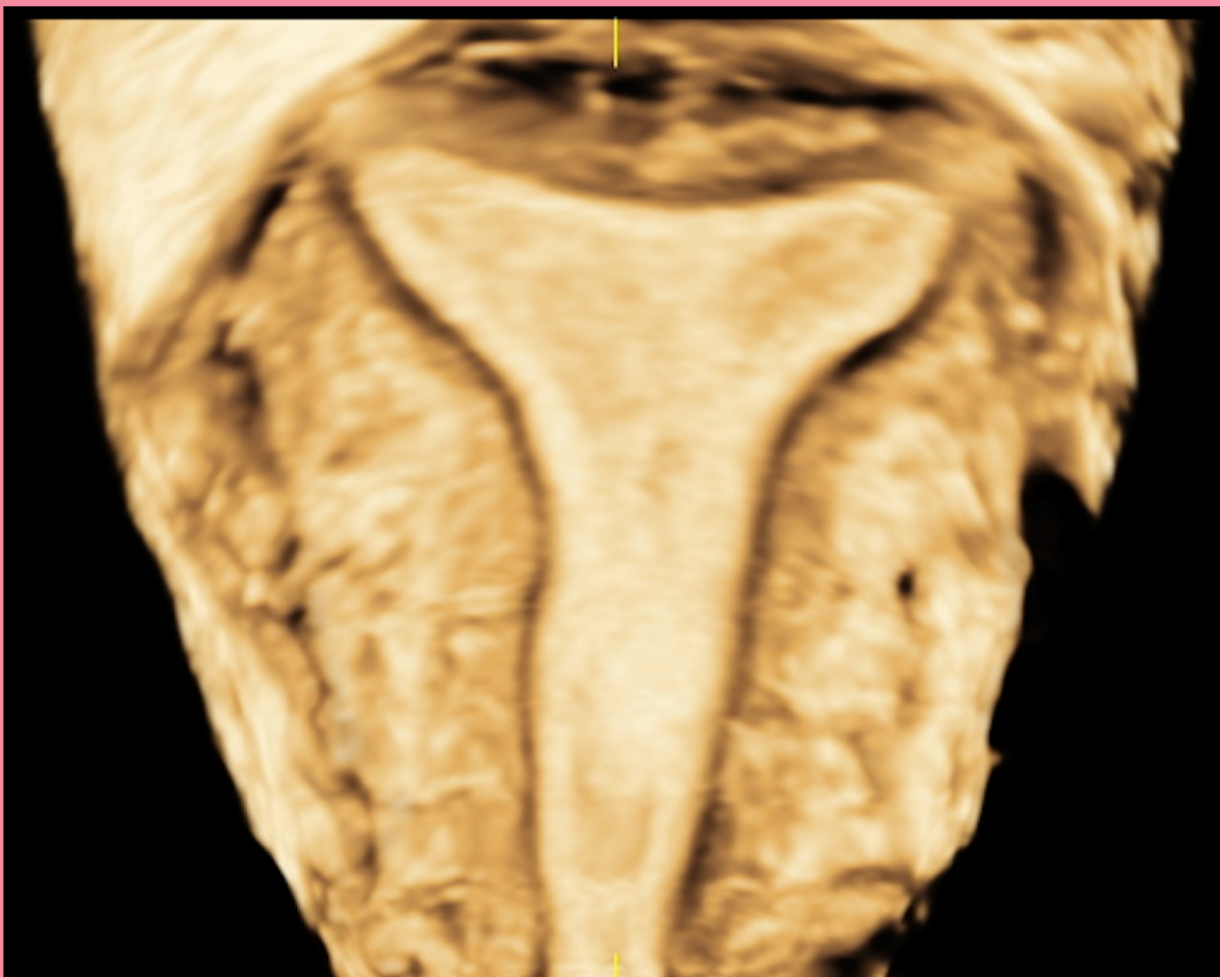
Usefulness of subjective evaluation of the junctional zone on transvaginal ultrasound in the diagnosis of adenomyosis



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Introduction

Adenomyosis (AD) is otherwise known as internal endometriosis. In this form of the disease, the endometrial cells are located in the muscular layer of the uterine wall. Patients who suffer from AD usually complain of painful periods and heavy bleeding. AD has its point of grip at the border between the muscular membrane and the mucous membrane of the uterus. Nowadays, non-invasive visualization methods, primarily 2D and 3D ultrasound and MR imaging, form the basis of initial diagnosis.



correct appearance of junctional zone

Methods

We examined 46 women referred to the hospital for surgical treatment for heavy menstrual bleeding, with a preliminary diagnosis of AD. In all the women studied, an endometrial biopsy was performed early to rule out endometrium pathology. Considering that all the patients completed the size of their family were qualified for elective surgery. All women underwent transvaginal ultrasound (TVUS) prior to scheduled surgery to evaluate the junctional zone (JZ) on 3-D imaging. JZ is a hormone-dependent zone located between the endometrium and myometrium undergoing cyclic changes in its thickness. In our study, we evaluated the regularity of the JZ outline in ultasonographic evaluation. TVUS examinations were performed using Samsung Hera W10 Elite or Voluson E10 BT18 GE. All patients underwent histopathological evaluation after surgery to confirm the diagnosis.

Results

Postoperative histopathological evaluation confirmed the presence of AD in 43 of patients studied (93,5%). In the group of patients with histopathologically confirmed AD, JZ irregularity was observed in 39 patients (86,7%). On the other hand, in the group of patients in whom AD was not confirmed on postoperative histopathological examination, the irregularity of the JZ image was not visible on TVUS.



incorrect appearance of junctional zone -JZ irregularity

Conclusion

Our experiment, was confirmed that subjective evaluation of the JZ can be a useful TVUS tool in the imaging diagnosis of AD.