OBJECTIVES: Adenomyosis is a disorder defined by the presence of ectopic endometrial glands and stroma within the myometrium. Transvaginal ultrasound (TVU) is currently the first-line examination for this condition and the aim of this paper is to relate a pilot experience that was conducted using TVU to evaluate adenomyosis and which started from the assumption that tissues with anatomopathological differences show different elasticity values. METHODS: Using standard B-mode analysis and elastosonography, we evaluated 30 consecutive women with suspected uterine adenomyosis. In 15 cases the diagnosis was confirmed by histology. RESULTS: The adenomyotic area presented more softness (red and green) compared with the surrounding uterine tissue (blue); the borders of the adenomyotic area corresponded to the borders of the green area. CONCLUSIONS: These preliminary results suggest that elastosonography could be considered a useful tool in the diagnosis of adenomyosis because it is non-invasive, easy to understand, easy to perform, and has a short learning curve towards becoming skilled at the procedure.