Uterus Didelphys With Adenocarcinoma in the Right Cavity Diagnosed by 2-Dimensional Sonography and Magnetic Resonance Imaging

To the Editor: Duplications of the uterus, cervix, and vagina are the most common congenital anomalies of the female reproductive organs.[1] Many patients go through life without the knowledge of their presence. An unrecognized separate uterine cavity may delay the diagnosis of malignant endometrial disease because the malignancy typically involves only 1 cavity of the uterus, with variable histologic entities in the other.[2] Such a case is described below.

A 41-year-old woman, gravida 2, para 0, had persistent uterine bleeding since her last period. Her previous pregnancies were terminated because of missed abortions without specific causes. She had been taking medications for diabetes mellitus and hypertension since she was 32 years old. Furthermore, she had undergone therapeutic uterine dilation and curettage (D&C) 4 times because of massive menstrual flow. Transvaginal sonography identified double uteri and normal ovaries. Her previous physical examinations revealed double vaginae and cervices with a normal contour of mucosa. All pathologic examinations showed simple cystic hyperplasia of the endometrium. After her last D&C, no more irregular menstrual cycles or menorrhagia were noticed until about 3 years later, when she had irregular vaginal spotting off and on for 3 weeks. Her last Papanicolaou test results were negative.

Two-dimensional sonography revealed discordant endometrial thicknesses of the bilateral uterine cavities. The endometrial thicknesses of the right and left horns were 15.8 and 6.2 mm, respectively (Figure 1). Endometrial hyperplasia or carcinoma was highly suspected. We also performed magnetic resonance imaging, which revealed the highly suspected endometrial carcinoma in the right cavity with invasion of less than half of the thickness of the myometrium (Figure 2). She then underwent diagnostic D&C of both uterine cavities. The final pathologic diagnosis was adenocarcinoma in the right cavity and hyperplasia in the left cavity. Two weeks later, the patient was admitted for complete staging surgery. During the operation, uterus didelphys was identified, including double vaginae, cervices, and cavities. Both cavities were patent with an ipsilateral cervix and vagina. The right endometrium showed a polypoidlike lesion filling the whole uterine cavity (Figure 3). On gross examination, it was suspected that the tumor had invaded the myometrium. However, the final report revealed right endometrial adenocarcinoma confined to the endometrium (histologic grade 2, moderate differentiation, surgical stage Ia) and left atypical endometrial hyperplasia. No malignant cells were identified in the bilateral ovaries and lymph nodes. No adjuvant therapy was administered after surgery.

Figure 1. Two-dimensional sonogram showing the apparent discrepancy between the right endometrial cavity (15.8 mm) and left endometrial cavity (6.2 mm).

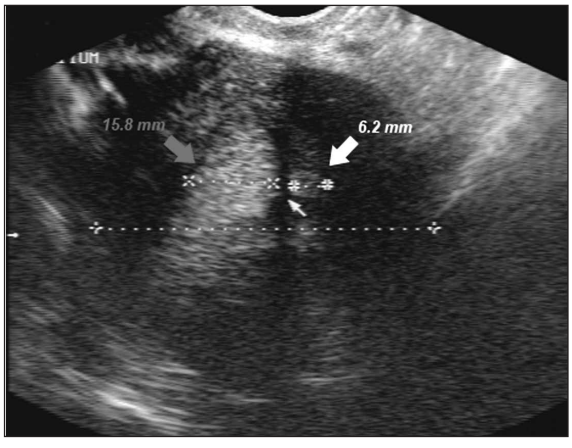
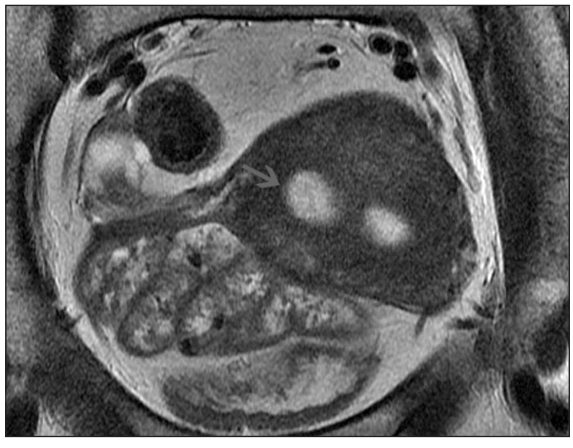


Figure 2. Magnetic resonance image showing the greater thickness of the right endometrial cavity (arrow).



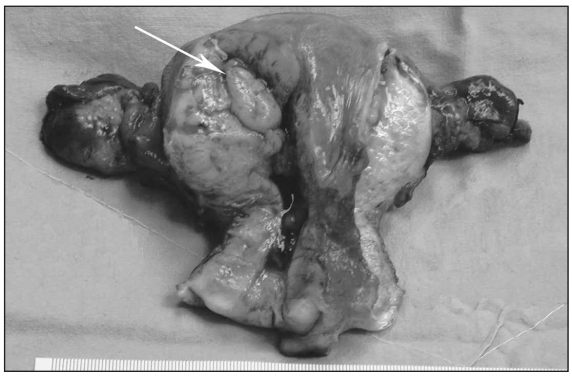


Figure 3. Uterus didelphys with a polypoidlike structure in the right cavity (arrow).

The occurrence of endometrial adenocarcinoma in a malformed uterus has rarely been reported.[3] To the best of our knowledge, a case of carcinoma in one horn of a bicornuate uterus that was accurately diagnosed by 2-dimensional sonography and magnetic resonance imaging before major surgery has not been reported previously. Sonography, especially with a transvaginal approach, is the initial imaging modality in patients with suspected endometrial disease. Endometrial cancer most often appears as an endometrium thicker than 5 mm in a postmenopausal woman or thicker than 15 mm in a premenopausal woman. The echogenicity varies, but an alteration of the endometrial texture or focal increased echogenicity may be seen. These appearances are not specific and can be observed in endometrial hyperplasia and polyps. In our case, the linings of the bilateral endometrial cavity were relatively smooth. The only peculiar finding was the great discrepancy between bilateral endometrial thicknesses, which made us suspect disease within the right endometrium. Magnetic resonance imaging also supported our sonographic finding; thus, cancer should be considered in such cases.

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