

## Case Report

## Non-puerperal uterine inversion caused by uterine sarcoma

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## Introduction

Inversion of the uterus is an uncommon event. Most cases of uterine inversions are puerperal. Non-puerperal inversions are usually chronic and caused by a uterine malignancy. We present a rare case of uterine inversion caused by uterine sarcoma. Based on a Medline search, this is the seventeenth report of such a case in the world and the first from Iran.<sup>1-5</sup>

## Case report

A 62-year-old-woman, gravida 11, para 9, abortion 2, who was menopausal for 10 years, was admitted to our gynecological clinic because of postmenopausal bleeding along with abdominal pain which she had experienced for 2 months. Her medical history was unremarkable. On physical examination, she was found to have a uterus approximately the size of that of a woman 16 weeks into a pregnancy. A large mass occupied the upper part of vagina, dilating the cervix. Blood biochemistry, a chest x-ray and kidney ultrasonography were all found to be normal. An abdominal ultrasound showed a large uterine mass (20 × 70 × 68 cm) with a 20-mm myomatous nodule in the anterior uterus wall. In addition, a solid heterogen mass (82 × 72 cm) was observed in the vaginal cavity. A computerised tomography scan of the abdomen and pelvis revealed a mass behind bladder and uterus.

A laparotomy was performed with a pre-operative diagnosis of a possibly malignant uterine mass. A mid-line abdominal incision was made and an inverted uterus was observed. A total abdominal hysterectomy and bilateral salpingo-oophorectomy and pelvic lymph node sampling were performed. Histological study of the mass showed the presence of a high-grade pleomorphic sarcoma of the uterine corpus with invasion to myometrium. Omentum and iliac lymph nodes were not involved. Post-operatively, the patient was advised to undergo chemotherapy along with pelvic radiotherapy to prevent a recurrence, but she defaulted from further follow up.

## Discussion

Non-puerperal uterine inversion is a rare disease, and the most frequent primary cause uterine leiomyomata. Uterine sarcomas and endometrial carcinoma are less common causes of uterine inversions. In some cases, uterine inversions are idiopathic.<sup>1-7</sup> The mechanism of uterine inversion is thought to increase uterine size causing muscle relaxation and softening of the uterus wall. Dilatation of the uterine cervix facilitates tumour extrusion from the uterus and as a result, uterine inversion.<sup>8</sup>

The symptoms reported in patients with uterine inversions were vaginal bleeding, pelvic and lower abdominal pain, vaginal discharge, the feeling of the presence of a mass in the vagina and some gastro-intestinal symptoms. On physical examination, a mass is usually palpable and visible in the vagina. In some cases, especially those uterine inversions due to puerperal causes, haemodynamic shock has been reported.<sup>8</sup>

Pre-operative diagnosis of uterine inversion helps to select the best method of management in these patients. Computerised topography scan images were not suggestive of the presence of uterine inversion.<sup>6</sup> Magnetic resonance imaging (MRI) enhanced by gadolinium has been shown to be an effective diagnostic tool,<sup>3</sup> with the characteristic MRI image of uterine inversion being an extruded tumour in the vagina and a u-shaped uterine cavity. However, MRI scanning is not universally available. In one study, diagnostic laparoscopic procedures were used for diagnosis of suspected uterine inversion.<sup>5</sup>

## References

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*Received 7 July 2004; accepted 14 July 2004.*

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