Coexistence of a ruptured ectopic pregnancy and cervical cancer: how to avoid a diagnostic error when the same symptoms present two different diagnoses

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Introduction

A pregnancy is defined as ectopic when it is confirmed to be anywhere outside of the uterine cavity. An estimated 2% of all pregnancies are ectopic [1]. In 90% of ectopic pregnancies, the egg implants in a fallopian tube [2]. The most important risk factors for ectopic pregnancy are the use of assisted reproductive techniques in cases of infertility, previous pelvic operations, pelvic inflammatory disease, smoking, and an age of over 35. Approximately half of all women with ectopic pregnancies do not have any known risk factors [3]. Despite the benefits of early diagnosis – mainly related to the ability to immediately measure the level of β-human chorionic gonadotropin (β-hCG) and to use transvaginal ultrasound – a ruptured ectopic pregnancy is still a significant cause of pregnancy-related morbidity and mortality (approximately 3.4% of pregnancy-related deaths in developed countries) [4]. The symptoms of ectopic pregnancy are nonspecific; abdominal pain, amenorrhea and vaginal bleeding are the most common. The initial diagnosis is based on the confirmation of pregnancy (by testing for the presence of β-hCG in the urine or blood serum) and performing an ultrasound scan, preferably transvaginal [5]. As a result of new advances in diagnostics, if diagnosed early on, an ectopic pregnancy can be treated conservatively with methotrexate or minimally invasive surgery techniques. However, some patients are admitted to the hospital in an unstable condition with bleeding in the peritoneal cavity, and there is a need for urgent surgical intervention [6]. The most important risk factor for developing cervical cancer is infection with oncogenic types of human papillomavirus. Factors contributing to human papillomavirus infection are multiple births, the use of oral contraceptives by women who simultaneously smoke, early sexual initiation, frequent changes in sexual partners, a positive history of sexually transmitted diseases, some autoimmune diseases, and chronic immunosuppression [7]. In the early stages of cervical cancer, clinical symptoms are absent or non-specific. The patient may present various kinds of abnormal bleeding (intermenstrual, contact or postmenopausal). In the treatment of cervical cancer, surgery, radiotherapy or chemotherapy are used in combination with surgery or radiotherapy, depending on the tumour stage [8]. According to the American Cancer Society, the 5-year survival rate in cervical cancer diagnosed at an early stage (limited to the uterus; FIGO stage I) is 92%.

Case report

A 29-year-old patient was referred to the Gynaecological Oncology Department due to a diagnosis of cervical cancer accompanied by ascites. The
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