Invasive cervical cancer and pregnancy: a case study

Maternity ward of the Abderrahim Mother and Child Hospital
Harouchi Ibn Rochd University Hospital, Casablanca.

Introduction

The diagnosis of cervical cancer is relatively rare during pregnancy, but it is the most frequently detected cancer in pregnant women. Its incidence varies between one and ten per 10,000 pregnancies, depending on the population [1], [2], [3]. The majority of cases occur in women in their thirties who have had multiple births (four to five, according to studies) [1], [2].

In addition, approximately 30% of patients with cervical cancer are of childbearing age at the time of diagnosis, and 1 to 3% of cervical cancers are discovered during pregnancy [4]. Pregnancy provides an opportunity to screen a population that sometimes receives little or no gynecological care, thanks to repeated clinical examinations and cervical smears, which are part of routine prenatal care.

Clinical observation

This is a 36-year-old woman with no history of disease, Ṿ G/ IIIP , 3 children by caesarean section , 2 spontaneous miscarriages ,admitted to the maternity ward of HAROUCHI hospital for cervical lesion during an unmonitored pregnancy at 39 weeks of amenorrhea . On admission, the patient was conscious, with BP: 12/06, HR: 76 bpm, BU: negative, TV: cervix dilated to 2 cm with speculum examination revealing: ulcerative budding lesion of the cervix, membrane ruptured for 7 hours, with clear fluid, high presentation, fetal heart sound detected at 137 bpm. Obstetric ultrasound revealed a progressing monofetal pregnancy, positive cardiac activity , cephalic presentation, fundal placenta, biometrics corresponding to term. ERCF: no abnormalities. The patient underwent a

prophylactic cesarean section, giving birth to a female newborn, birth weight: 3750g, APGAR 10/10. A cervical biopsy was performed, . Pathological examination revealed a well-differentiated squamous cell carcinoma of the cervix.Pelvic MRI revealed: tumor thickening of the endocervix invading the vaginal fornix and parametrium, crossed by the isthmocele, right primary iliac lymph node measuring 12.5 mm in short axis, classifying the examination as T4N1MX.

Discussion

Cervical cancer is one of the most commonly diagnosed cancers during pregnancy, along with breast cancer, malignant hematological disorders, and melanoma. Its incidence is estimated at 1/10,000 pregnancies [5]. According to a recent Swedish study, 1.2% of invasive cervical cancers are discovered during pregnancy [6].

Zemlickis et al. [7] showed that cervical cancers diagnosed during pregnancy were significantly more often in the early stages: 69–83% in stage I versus 42% in the non-pregnant group, 11–23% in stage II versus 35%, 3–8% in stage III versus 21%, and 0–3% in stage IV versus 2%.

It is therefore important to systematically screen women during their first prenatal consultation. In 1995, Baldauf et al. [8] conducted a case-control study which showed that there was no significant difference in concordance between cytology and colposcopy with direct biopsy, regardless of whether or not the woman was pregnant.

The distribution of histological types is identical between pregnant and non-pregnant women: 95% squamous cell carcinomas and 5% adenocarcinomas [9].

Pregnancy does not alter the prognosis or progression of cervical cancer in the early stages (stage IB being the most common): in 1992, Hopkins et al. [10] published a case-control study comparing the five-year survival rate for stage IB squamous cell cervical cancer in pregnant women versus non-pregnant women, finding no significant difference. Lee et al.

[11] in a retrospective Korean multicenter study , published in January 2008, compared the prognosis of cervical cancer between pregnant and non-pregnant patients using matching. For stage IB, they observed no significant differences in resection margins, parametrial invasion, lymphatic and vascular emboli, treatment modalities, or five-year survival.

The management of cervical cancer is now well codified [12]. The combination of pregnancy and cervical cancer requires multidisciplinary management involving obstetricians, oncologists, cancer surgeons, and pediatricians. Analysis of the literature reveals mainly reported cases or small series. A set of guidelines has been developed by the French National College of Gynecologists and Obstetricians (CNGOF) concerning the management of pre-invasive lesions during pregnancy [13]. With regard to invasive cervical tumors diagnosed during pregnancy (from FIGO stage IB onwards), Morice et al. published national recommendations [14] validated by three French learned societies: the French Society of Gynecological Oncology (SFOG), the French Society of Pelvic Surgery (SFCP), and the CNGOF. We wanted to take stock of our practices with reference to these recommendations.

Conclusion

In women who have not been closely monitored or who have not been screened for more than two years, a Pap smear should be performed at the beginning of pregnancy to screen for cervical abnormalities and to raise patients' awareness of the importance of this screening. For dysplastic lesions in the absence of proven invasion on colposcopy, treatment can be deferred until after delivery, under close supervision. For invasive lesions, the assessment must be supplemented by MRI to determine the size of the lesion as accurately as possible. Management will depend on the term, the stage of the lesion, and lymph node involvement, if this information can be obtained (laparoscopic pelvic lymphadenectomy up to 20-24 weeks of gestation for tumors smaller than 4 cm). The couple must be informed that pregnancy itself does not alter the prognosis of the tumor. If the couple's e s to continue with the

pregnancy and treatment must be deferred until fetal maturity, the risks associated with the delay must be assessed based on the time required and the prognostic factors of the tumor. The treatment is decided collectively by the oncologist, surgical oncologist, obstetrician, neonatologists, and the couple.

References

- P.H. Morice *et al.*
  Ovarian transposition for patients with cervical carcinoma treated by radio-surgical combination
  Fertil Steril (2000)
- E. Cardonick *et al.*
  Use of chemotherapy during human pregnancy
  Lancet Oncol (2004)
- A. Bader *et al.*
  Long-term follow-up after neoadjuvant chemotherapy for high-risk cervical cancer during pregnancy
  Gynecol Oncol (2007)
- H.R. Marana *et al.*
  Chemotherapy in the treatment of locally advanced cervical cancer and pregnancy
  Gynecol Oncol(2001)
- N.R. Abu-Rustum *et al.*
  Radical abdominal trachelectomy for stage IB1 cervical cancer at 15-week gestation
  Gynecol Oncol(2010)
- A. Mandic *et al.*
  Radical abdominal trachelectomy in the 19th weekin patients with early invasive cervical carcinoma: case study and overview of literature
  Am J Obstet Gynecol(2009)
- F. Amant *et al.*
  Gynaecologic cancer complicating pregnancy: an overview
  Best Pract Res Clin Obstet Gynaecol (2010)
- S. Alouini *et al.*
  Cervical cancer complicating pregnancy: implications of laparoscopic lymphadenectomy
  Gynecol Oncol (2008)
- K. Van Calsteren *et al.*

Cervical neoplasia during pregnancy: diagnosis, management, and prognosis
Best Pract Res Clin Obstet Gynaecol (2005)

- G. Favero *et al.*
  Invasive cervical cancer during pregnancy: laparoscopic nodal evaluation before oncologic treatment delay
  Gynecol Oncol (2010)
- B. Occelli *et al.*
  De novo adhesions with extraperitoneal endosurgical para-aortic lymphadenectomy versus transperitoneal laparoscopic para-aortic lymphadenectomy: a randomized experimental study
  Am J Obstet Gynecol (2000)
- E. Leblanc *et al.*
  Therapeutic value of pretherapeutic extraperitoneal laparoscopic staging of locally advanced cervical carcinoma
  Gynecol Oncol (2007)

- L. Selleret *et al.*
  Precancerous cervical lesions during pregnancy: diagnosis and treatment
  J Gynecol Obstet Biol Reprod (Paris) (2008)
- C. Haie-Meder *et al.*
  SOR guidelines for concomitant chemoradiotherapy for patients with uterine cervical cancers: evidence update bulletin 2004
  Ann Oncol (2005)