Early cervical cancer treatment and pregnancy

Madalina Piron\textsuperscript{1,2}, Lucian Pop\textsuperscript{1,2}, Viorica Radoi\textsuperscript{1,2}, Radu Ursu\textsuperscript{1,2}, Bianca Danciu\textsuperscript{1}, Nicolae Bacalbasa\textsuperscript{2,3}, Irina Balescu\textsuperscript{4}, Ioan D. Suciu\textsuperscript{5}

\textsuperscript{1}“Alessandrescu-Rusescu” National Institute of Mother and Child Care, Bucharest, Romania
\textsuperscript{2}Department of Obstetrics and Gynecology, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania
\textsuperscript{3}Department of Visceral Surgery, Center of Excellence in Translational Medicine, Fundeni Clinical Institute, Bucharest, Romania
\textsuperscript{4}Department of Visceral Surgery, Ponderas Academic Hospital, Bucharest, Romania
\textsuperscript{5}General Surgery Department, Floreasca Emergency Hospital, Bucharest, Romania

ABSTRACT

Cervical cancer is the 4th most common cancer in women’s across the world, with a 10 year survival rate of more than 60%. An important proportion of these women are at a reproductive age. Therefore depending of the stage at the time of diagnosis, different approaches have been used in order to preserve fertility function. Two methods have been tried, knife biopsy with or without laparoscopic lymphadenectomy and trachelectomy for IA1, respectively IA2-IB1.

Described by Dargent in 1994, has changed approach in cervical cancer for young women that have not completed their families. The rational behind this technique is to remove the cervix and surround parametrium, followed uniting the vagina to the isthmus, anastomosis which is reinforced by a stich.

Keywords: trachelectomy, knife biopsy, cervical cancer, preterm labour

INTRODUCTION

Trachelectomy treatment with pelvic lymphadenectomy has a 5 years survival rate comparable with the classical radical hysterectomy with pelvic lymphadenectomy, around 97%-98%. Trachelectomy can be performed, vaginally, laparoscopically, abdominally and robotic. Recurrence rate is similar regardless of the surgery mode [1,3].

CARE OF WOMAN WITH TRACHELECTOMY

The number of pregnant women with trachelectomy is increasing. Among potential complications, clinicians should be aware of increases chances of PPROM (preterm prelabour, rupture of membrane); preterm labour and second trimester miscarriage. There are no protocols or guidelines regarding this topic, so it appears to be limited knowledge of the complications that could arise following this surgery. In a well conducted review, Tirlapur et al. concluded that the average time between surgery and conception is 31 months with a follow up period of 31 months. Term deliveries accounted for 54.7%, first trimester miscarriage for 16% and second trimester miscarriage for 7% [4].

MODIFIED ANATOMY

In a normal pregnancy, cervical length, internal os and endocervical plug, act together, in maintaining the pregnancy and avoiding infection. Patients with trachelectomy and Dargent surgery, are prone to chorioamnionitis. Dilatation of the cervix could progress undetected; in multiple occasions this was reported as painless. Preterm labour has an incidence of 24% to 28%. All these facts should be disclosed to the patients prior to surgery. Cervical (isthmic incompetence) is a common fact, therefore reproductive units should not transfer more than one embryo, to avoid the possibility of multiple pregnancy [5].

As we have mentioned, first trimester rate of miscarriage is similar with the one in general population, but second trimester rate and premature labour are well above this threshold. In case of a miscarriage in first trimester, dilatation and suction can be performed with the cervical stich in place and Hegar 7 dilatation under ultrasound [6]. Strong expertise and D&C is necessary as location of the neo cervix can be challenging. For second trimester miscarriage, removal of the stich is necessary, while hysterotomy remains controversial. As previously
stated, there are no guidelines for follow up of a woman with trachelectomy, but serial scans by experienced sonographer are mandatory, to assess and to notice the shortening of the cervix. So far there is no evidence for insertion of an extra stich. As the stich itself can be a source of infections, is recommended to perform a vaginal swap fortnightly and antibiotics as a prophylaxis [7]. Another source of infection is the intercourse and is recommended to be avoided between 20 and 36 weeks of gestation [8,9]. The stich can be buried under vaginal epithelium, to minimise the risk of infection. In asymptomatic women, progesterone reduces the risk of preterm delivery, not particularly in women with trachelectomy but is sensible to prescribe progesterone in this group of women as well. From 24 weeks onward, steroids should be prescribed because of the high incidence of PPROM and preterm labour [10]. Elastic stockings as a way of thromboprophylaxis, can be done while LMMWH is reserved for patients with factors for Pulmonary embolism (PE) or deep venous thrombosis (DVT). Across the literature, is a general consensus that the best delivery way is, caesarean section. Initially, a classical caesarean section was performed due to the risk of extension of the transverse incision as lower segment was not completely formed [11]. Nowadays, a high transverse or a low transverse (if lower segment is formed) is possible and appears to be safe. Delivery should be performed by 37 weeks of gestation to prevent labour and emergency caesarean section [12,13].

CONTRACEPTION

Following surgery, pregnancy should be avoided for 6 months as miscarriages and preterm deliveries are increased, according to Himes and Simhan’s. Before pregnancy, is necessary to assess the cervix through colposcopy, negative smear and pelvic MRI. If is no evidence of early recurrence, the patient can proceed with pregnancy [14].

CONCLUSIONS

For the years to come, Trachelectomy will continue to be the standard management in stage IA12 or IB, for the women that wish to preserve fertility. Cases and case series of less invasive surgery have been published, looking at the fact that the risk of parametrial involvement at an early stage is less than 1%. Whatever changes are made this has to be done bearing in mind the oncological outcome and life expectancy. In such a difficult decision, the care should always be multidisciplinary. Communication between patients and doctors is of utmost importance, enabling the patient to obtain clear and robust information.

Conflict of interest: none declared
Financial support: none declared

REFERENCES