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Successful IVF Pregnancy in Patient with Serous Borderline Ovarian Tumor

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Introduction

Women seeking advice regarding pregnancy after completing treatment for ovarian cancer has increased **(**1-2**)**. For women who has not done gamete preservation prior to cancer therapy, donor oocyte is ideal and cost effective option for fulfilling their desire to get pregnant. These patients should be advised by their oncologist regarding fertility preservation and future reproduction prior to starting treatment. Ovarian Malignancy constitutes about 15-20% of genital malignancy. It is the leading cause of cancer death in women next to breast cancer. 20 % ovarian neoplasm are malignant. It is more common in nulliparous women. Worldwide there are 2,39,000 new case and 1,52,000 deaths from ovarian cancer each year. Here we represent a case of patient with serous borderline tumour who underwent bilateral oophorectomy and went for IVF with donor eggs and had successful pregnancy in first attempt.

Case Report

The patient was 26 years old women who had Surgery in another hospital for bilateral large complex adnexal mass.She underwent laparotomy for bilateral tubo ovarian mass in 2015 with serous borderline tumour with micro invasion Her CA-125 was sent which was 297 and Cytopathology report showed features of Atypia. Her ultrasound finding showed right and left adnexa with large complex mass of size 85 * 105 mm and 75 *95 mm cystic with solid areas adherent to posterior side of uterus.

She had amenorrhoea post-surgery as she had undergone bilateral oophorectomy.She has been followed since than with vaginal ultrasound , CA-125 monitoring as well as yearly CT scan of abdomen and pelvis with no reoccurrence of tumour.

Patient got married in December 2019 and wanted to conceive. Since oophorectomy was done, she went for oocyte donation with anonymous donor. Hormonal support was given and transfer of two good blastocyst was done. Bhcg was done 15 days post transfer which was positive. She was given full hormonal support and patient conceived with twin pregnancy and delivered at 37 weeks.Both babies were normal with no evidence of malformation.

Discussion

Since 1970s the WHO & FIGO Classify borderline ovarian tumour as ovarian epithelial tumour. **(**3-4**)** They are characterised by nuclear abnormalities, increased mitotic activity but unlike ovarian cancer, they are not infiltrative or have deconstructive growth or stromal invasion **(**5**)**. Borderline tumour represents 10-20% of all ovarian epithelial tumours**(**6**)**. Epidemiological data represents that one third of borderline patient are less than 40 years **(**7-8**)**.

Therefore, preservation of childbearing potential plays important role in counselling patient with borderline tumour. Serous and mucinous borderline tumour are very common **(**9**)**.

Overall reoccurrence rate is estimated between 3 & 10 % **(**10,11,12,13**)**. A systematic review **(**7**)** showed that 37 % of reoccurrence are diagnosed during first 2 years, 31% in 2-5 years and 32% patients express relapse later than 5 years after diagnosis and 10% occurring after 10 years **(**7**)** with such long intervals of occurrence there is development of de no vo instead of real relapses **(**13-14**)**.

ART Techniques have given new hopes and have increased the chances to have children as it allows women to safely conceive and deliver.

Fertility preservation option for single women are oocyte cryopreservation and for couples embryo cryopreservation can be performed.Controlled ovarian stimulation with fertility medication and timely retrieval of oocyte and embryo formation are done and they are cryopreserved. This helps couple for multiple attempts to achieve pregnancy.These procedures can be done without significant delay to cancer treatment. Donor oocytes are blessings for women who have completed their cancer treatment which made them infertile, without prior fertility preservation in our case report.Timely reporting of patient to fertility specialist is mandatory. It is responsibility of oncologist to impart knowledge of various option of conception to young women for fertility preservation before undergoing treatment of cancer. On the other hand, gynaecologist should give the available option and treatment without delaying cancer treatment. So, team effort is required to communicate pros and cons of variable modalities available and effectiveness of treatment, possible risks for long term and cost of treatment so that patients can plan their treatment accordingly.

Conclusion

Thus, conception through fertility treatment for ovarian cancer does not affect their survival as seen in this case. Oocyte donation is a good option available for women who are infertile and had no option available as they did not preserve their gamete before cancer treatment. A multidisciplinary approach is always essential in such cases.

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