FERTILITY PRESERVATION AMONG YOUNG PATIENTS WITH EARLY STAGE ENDOMETRIAL CARCINOMA:

A REPORT OF THREE CASES AND REVIEW OF LITERATURE

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BACKGROUND AND AIM

It is estimated that 2-14% of women with endometrial cancer are diagnosed before the age of 40 years old[1]. The advent of hormonal therapy in early stage endometrial cancer has provided an alternative option for women who are desirous of future child-bearing. High disease regression rates with low relapse rates have been reported after progesterone therapy[2]. Furthermore, decent pregnancy rates have also been reported upon further fertility treatment[3].

METHODS

Three (3) cases of early stage endometrial cancer are presented. Relevant literature on hormonal management of early stage endometrial cancer to preserve the uterus was searched through PUBMED, MEDLINE, and SCI-HUB. Special attention was given to reports involving the course of cancer and fertility treatment in such cases.

RESULTS

The clinical course of three (3) cases of early stage endometrial cancer are summarized in Table 1. Case 1 achieved spontaneous pregnancy and delivered a term live baby but had a relapse two years postpartum. The other two cases underwent embryo cryopreservation following in vitro fertilization (IVF) with intracytoplasmic sperm injection (ICSI). Case 2 had twin pregnancy after frozen embryo transfer but miscarried, while Case 3 is still for embryo transfer.

Based on previous reports, although 82% regression rates have been achieved after progesterone therapy, significant relapse rates (25%) may occur[2]. Success of fertility treatment may vary depending on the clinical factors.

CONCLUSION

Fertility preservation is a feasible option for women with early stage endometrial cancer who are desirous of future pregnancy. However, patients must be carefully counseled on the risks and possibilities of such treatment. Definitive surgery must be considered when hormonal and/or fertility treatment fails.

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Table 1. Summary of the Clinical Course of the Index Patients

Case Number	Age / Marital Status / Body Mass Index (BMI)	Gravidity and Parity	Pertinent History	Stage and Grade of Endometrial Cancer	Myometrial invasion (as evaluated by magnetic resonance imaging)	Hormonal Therapy	Remission Achieved	Fertility Treatment	Pregnancy Outcome
1	30 years old, married, BMI = 18.9 kg/m2	Nulligravid	Polycystic Ovarian Syndrome; Primary Infertility for 2 years without male factor	Well-differentiated endometrioid adenocarcinoma Stage IA, FIGO grade I	Absent	Megestrol acetate 160 mg per orem daily for 6 months followed by gonadotropin releasing hormone analogue (Leuprolide 1.88 mg) subcutaneously for 3 months	Yes, but definitive surgery performed after relapse two years postpartum	Controlled ovarian stimulation (COS) with timed intercourse	Delivered a Term Live Baby
2	35 years old, married, BMI = 31.5 kg/m2	Gravida 1, Para 1 (1001)	Polycystic Ovarian Syndrome; Secondary Infertility for 9 years without male factor	Well-differentiated endometrioid adenocarcinoma Stage IA, FIGO grade I	Absent	Medroxyprogesterone acetate 400 mg per orem daily for 6 months	Yes	Controlled ovarian stimulation (COS) with in vitro fertilization (IVF) with intracytoplasmic sperm injection (ICSI)	Twin pregnancy but miscarried
3	31 years old, married, BMI = 20.9 kg/m2	Nulligravid	Polycystic Ovarian Syndrome; Primary Infertility for 1 year without male factor	Well-differentiated endometrioid adenocarcinoma Stage IA, FIGO grade I	Absent	Megestrol acetate 160 mg per orem daily for 6 months with insertion of 52 mg levonorgestrel-releasing intrauterine system	Yes	Controlled ovarian stimulation (COS) with in vitro fertilization (IVF) with intracytoplasmic sperm injection (ICSI)	For embryo transfer