

prising a set of triplets (successfully reduced to singleton, delivered) and 2 sets of twins (1 delivered at 32 weeks' gestation by C/S, the other ongoing). All 4 pregnancies were achieved in Estraderm-stimulated cycles with ET performed on cycle day 12 to day 18. We drew the following conclusions for women with POF. (1) Donated oocytes coupled with IVF-ET, being non-invasive, remains the procedure of choice compared to TET or GIFT. (2) The window of transfer is not necessarily restricted to the ideal days 17-19, provided a receptive endometrium has been created. The luteo-placental shift begins to occur in the 5th week after ET from estradiol to progesterone on 6th week. The transfer window could be day 12 through day 21. (3) Transdermal estradiol produced a better pregnancy outcome in comparison to orally administered estrogens. (4) Discontinuation of exogenous hormonal replacement can occur as early as 6 weeks after ET, at which time the progesterone shift has occurred.

## INTRODUCTION

Women suffering from premature ovarian failure (POF) presenting as hypergonadotropic hypogonadism before the age of 35 were once regarded as hopelessly sterile. However, their hope of becoming pregnant became approachable when Lutjen et al.<sup>1</sup> reported a successful pregnancy in a woman with POF. Following this success, various techniques and procedures have also been reported to be successful in establishing pregnancies in these women. These procedures include in-vitro fertilization-embryo transfer (IVF-ET), transtubal embryo transfer (TET), gamete intra-fallopian transfer (GIFT), nonsurgical transfer of donated ova, and transfer of freeze-thawed donor embryos.<sup>2-6</sup>

Nevertheless, issues like endometrial receptivity, the "window of transfer" and the timing of the "luteo-placental shift" still remain controversial. We under-

took to investigate these issues and present our preliminary experience in hormonal replacement therapy for POF. We observed superior efficacy of transdermal estrogens compared to orally administered estrogens.

## MATERIALS AND METHODS

### Recipients

Ten women with POF constituted our study group. The mean age of these women was 36.4 years (range 27-45 years). All recipients' husbands had normal seminal analysis. Three different types of estrogen were used to stimulate endometrial proliferation. Orally conjugated estrogen (Premarin) was used in 7 cycles (Fig. 1), estradiol valerate (EV) in 6 cycles (Fig. 2), and transdermal estradiol (TE2, Estraderm) in 11 cycles (Fig. 3). Dosages of estrogen were individual-

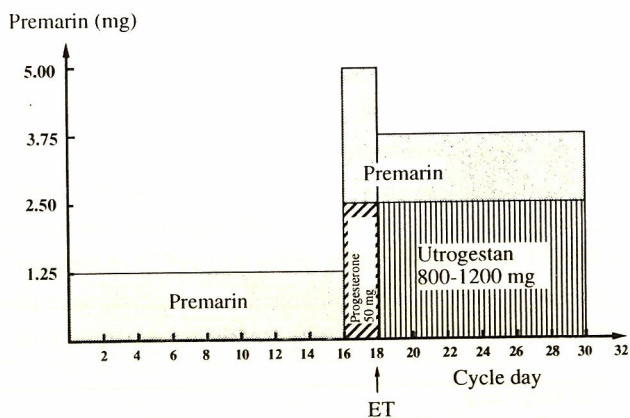


Fig. 1. Premarin replacement in a donor oocyte program.

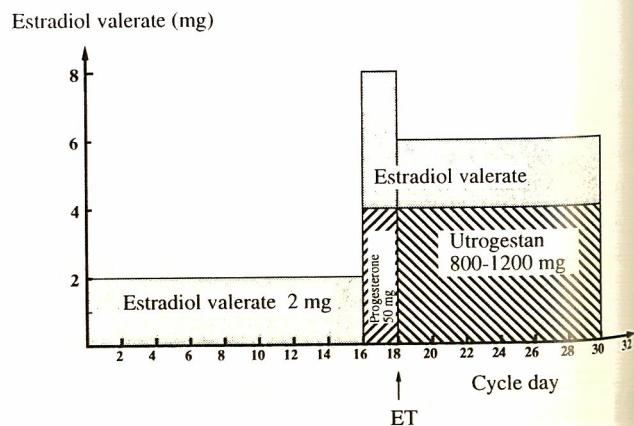


Fig. 2. Estradiol valerate (EV) replacement in a donor oocyte program.