ORAL PRESENTATIONS

Biology of ovarian failure

Monday 23 June 1997
Hall A+B+C: Pentland Suite

08.30–09.00

O-001. The follicle population throughout life

Gosden R.G.
Centre for Reproduction, Growth and Development, University of Leeds, Leeds General Infirmary, Leeds, UK

A fixed store of follicles is formed in the ovary before birth and is progressively depleted thereafter. Ovarian failure and menopause are therefore the inevitable results of surviving longer than the follicular store. The numbers of primordial follicles decline at a steady rate until ~37 years of age, after which the process accelerates 2- to 3-fold. When they fall below a threshold of ~1000 cyclical growth of a dominant follicle and menses cease. Atresia in primordial follicles appears to become more frequent after the age of 37 years, though the accelerated ageing of the ovary may also be caused by an increased rate of recruitment into the growing stages. Indeed, treatments that partially deplete the ovary of follicles also raise the growing fraction in what appears to be a vicious cycle, thus hastening ovarian failure. Comparative biological studies indicate that the rate of ovarian ageing is species-specific with respect to the size of the follicular store established initially and the rates of follicle recruitment and atresia. What is more, significant variations exist between inbred strains of mice, reflecting evidence of genetic influences on the timing of natural menopause in humans. Numerical chromosomal anomalies of the sex chromosomes or autosomes invariably affect follicle numbers, but specific genes also have an impact, and analyses of animal mutants and gene knockouts are beginning to reveal some important candidates.

09.00–09.30

O-002. Genetics of ovarian failure

Aittomäki K.
Department of Medical Genetics, University of Helsinki, SF-00290 Helsinki, Finland

Abstract not submitted

O-003. Treatment of ovarian failure

Borini A.
Tecnobios, Centre for Reproductive Health, Bologna, Italy

Ovarian failure is heterogeneous in aetiology and may occur at any time during the life of a woman. Many medicinal regimens have been theorized and used in attempts to obtain pregnancies in women with ovarian failure. Occasionally pregnancies have been established using these regimens, but it is impossible to understand whether they were as a result of the therapy. So there are no therapies available which are able to reinstate ovarian function; only oocyte donation offers the chance for pregnancy. Initially, oocyte donation was offered to women with premature ovarian failure, and the chances for pregnancy were vastly superior to any of the methods previously described. After a few years, offers of oocyte donation were extended to women with any other form of ovarian failure, even post-menopausal women. The pregnancy rate with oocyte donation varies between 25 and 40%. At present, for women with ovarian failure, the chances of achieving a pregnancy without assisted reproductive technologies are greatest in young women with secondary amenorrhoea. In patients with primary amenorrhoea, therapy should be directed towards oocyte donation. Women aged >40 years with elevated gonadotrophin concentrations should also be offered donor oocytes as a first-line approach. Ultimately, patients with hereditary diseases or karyotype abnormalities should seriously consider oocyte donation.

09.30–10.00

Exchange session

Monday 23 June 1997
Hall A: Pentland Suite

10.30–10.50

O-004. Quantitative observations of the flagellar beat patterns of capacitating human spermatozoa

Mortimer S.T., Schoëvaërt-Brossault D., Swan M.A. and Mortimer D.

1Department of Anatomy and Histology and Institute for Biomedical Research, University of Sydney, Sydney, Australia and 2Hospital St Louis, Paris, France

1Department of Anatomy and Histology and Institute for Biomedical Research, University of Sydney, Sydney, NSW 2006, 2Sydney IVF, Sydney, Australia and 3Hospital St Louis, Paris, France