

PR021 May 2008

YOUR MUM, NOT IVF, DETERMINES AGE OF MENOPAUSE
Health of first generation IVF patients unaffected by follicle stimulation

One of the first long-term studies on the effect of IVF treatment on women's health has concluded that follicle stimulation has no effect on the age of menopause onset or the severity of the symptoms.

Researchers from Bourn Hall Clinic, UK, Queensland University of Technology, Brisbane and the Weill Medical College of Cornell University, New York, investigated the first generation of IVF patients who were treated at Bourn Hall between 1981-94. The clinic was established by IVF pioneers Steptoe and Edwards after the birth of first 'test-tube' baby, Louise Brown, in 1978.

Although theory and biological observations had indicated that stimulation of the ovaries to generate the eggs required for IVF treatment should not impact the store of small follicles, this had not previously been confirmed clinically.

Senior research scientist Dr Kay Elder, who led the study at Bourn Hall, worked with the founders of the clinic in the early days and was well aware of the initial concerns.

"It was an unknown territory in those days," she comments. "Although all the studies showed that the treatment was safe, it was ground-breaking and we couldn't predict the potential long-term impacts."

"A baby girl is born with a life-time's supply of eggs. These are produced by the ovaries continuously after puberty, but only once a month are the conditions right for ovulation and fertilisation. With ovarian stimulation we are in effect harvesting eggs that would normally go to waste; however there was a concern that 'using up the eggs' too quickly would trigger early menopause."

The researchers contacted over 700 former patients of Bourn Hall and asked them to complete a questionnaire relating to their health and lifestyle, since factors such as smoking

are implicated in early menopause. This data was supplemented by reproductive and health-related information retained by the clinic.

Of the patients who responded, the mean age at which they started treatment was 35.2 years. The mean age of first period was 13, and age of menopause was estimated as 50.1 which is comparable to menopausal ages reported in numerous studies throughout the world.

The age of menopause was shown to be most closely related to maternal history, with women starting menarche and their menopause at a similar age as their mothers.

There was no increase in perimenopausal symptoms with the number of assisted reproductive technology treatments. These findings are reassuring and concur with knowledge of ovarian follicle physiology.

For the early patients, getting pregnant was uppermost in their minds. The complexity and involvement of the early treatment meant that women were focused on immediate rather than future concerns.

“I never considered early menopause as a risk of IVF,” comments Suzanne Taylor. “In those days there were so many stages to go through – it was more difficult then. There was constant monitoring of hormones so we were woken up two or three times per night to get a urine sample.”

“We weren’t allowed any visitors except our husbands, so it was all women together, and there was a great sense of camaraderie,” she adds. “We were all staying in prefab buildings in the grounds of the hall.”

Fellow patient Judi Brown remembers lodging in the village, so as to be close to the Clinic. “When we first started IVF, we’d stay in a house in the village, across the road from Bourn Hall. All the men would go out for a drink down the pub even though they weren’t supposed to! The girls got really close.”

Belonging to the ‘IVF club’ creates a shared bond between women. Judi also remembers the ‘friendship groups’ that existed to give support. “There were eight sets of parents who kept in touch for a number of years afterwards,” she says. “We were all there together for each other.”

Kay has enjoyed making contact again with these early patients, many of whom have become friends, and feels that the results are reassuring for the current generation of patients.

“We are very grateful to all the women that took the time to respond to this study. Overall, gonadotrophin administration appears to have no lasting impact on the timing or symptoms of menopause. Since many of these women received multiple treatment cycles and large doses of drugs the current trend towards milder stimulation protocols should have no effect either which is reassuring for the future.”

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Notes for editors

We have interviewed several of these patients from the early days and can provide quotes and case-studies as required.

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Details of the paper

Impact of Gonadotrophin Stimulation for ART on Ovarian Ageing and Menopause
Reproductive Biomedicine Online, May 2008. Vol 16(5)
(page numbers not available yet)

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About Bourn Hall Limited

Bourn Hall Limited provides services in two fields; Bourn Hall Clinic, the world's first and best known assisted conception clinic, established in 1980 by Patrick Steptoe and Robert Edwards, the pioneers of IVF, and LCG Bioscience, a contract research organisation, which provides exploratory phase human clinical development services for the pharmaceutical and biotechnology industries.

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