Evolution of pregnancies in the French CF Registry: Impact of pregnancy in women with cystic fibrosis (CF)

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More women with CF now become pregnant. Clinicians and patients have many questions about the evolution and prognosis of these pregnancies.

Aim: To describe evolution of pregnancies and clinical status of pregnant women in the French CF Registry.

Methods: Data collected between 1992 and 2011 from women aged 15–49 registered in the Registry were used. For some incomplete data, only follow-up data collected between 2002 and 2011 were analyzed.

Results: During those 20 years, 322 women became pregnant, for a total of 394 pregnancies (average number of pregnancies per woman: 1.2). The annual number of cases has increased (8 in 1992 to 48 in 2011). Age at first pregnancy remains steady (mean±SD: 26.8±5.4 years). Mean VEMS was 51.6% in 1992 and 71.1% in 2011 and is concordant with evolution of VEMS in CF adult women. BMI collected the year preceding pregnancy is constant over the period (mean±SD: 20.4±3.3). Between 2002 and 2011, the early pregnancy rate was 24.7%; 72.5% of the women were PI and 22% had diabetes. In total, 35 deaths were registered, occurring 5±3.8 years after pregnancy on average. Mean age at death (31.4±8.3 years) exceeds that of the CF population as a whole (29 years in 2010). Interestingly, 24 women became pregnant after transplant (mean time to pregnancy after transplantation: 3.9±2.3 years).

Conclusion: The annual number of pregnancies has increased dramatically over the last 20 years. The clinical status of pregnant women evolves in a similar manner to that of other adult women in the Registry. This work highlights the increasing number of pregnancies in transplanted patients and it will be interesting to study this specific population.

Impact of pregnancy in women with cystic fibrosis (CF) – A retrospective single centre study

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Background: Improvements in health and survival of patients with CF have led to many women having successful pregnancies.

Objectives: To assess the effects of pregnancy on nutritional and clinical indices in women with CF.

Methods: Retrospective cohort study. Pre- and post-pregnancy (1year) data was analysed in women with CF who had a pregnancy between 2008–2011 at The Alfred, Melbourne. Variables studied included lung function, weight, BMI, HbA1c, vitamin levels, duration of pregnancy and birth weight.

Results: All pregnancies resulted in live births (mean gestation period 37 weeks; mean birth weight 2.8kg). A total of 9 women (16–42 yrs, baseline FEV1 78%, BMI 21.3kg/m2, 9 singleton pregnancies) were studied. Five women were pancreatic insufficient (PI), 2 had CFRDM. An average decline in FEV1 of 12% was observed post-pregnancy. PI patients’ lung function decline was greater compared to PS patients (−17.4% vs −4.7%, p = 0.32). Women with a FEV1 >60% gained more weight than those with FEV1 <60% (11.5 kg vs 4.8 kg, p = 0.096); PS women gained 4.5 kg more during pregnancy than PI women. Women with PI had significantly lower Vitamin E (19.7 umol/l vs 25.3 umol/l, p = 0.015), lower Vitamin A and D levels and bone density both pre- and post-pregnancy. HbA1c significantly increased post-pregnancy (5.63% vs 6%, p = 0.05). Three women (PI) developed gestational diabetes (GDM), 1 developed CFRDM. All women are alive to date.

Conclusion: Pregnancy for women with CF is possible but can be associated with specific adverse outcomes. Women with pre-existing poor lung function and PI should be counselled antenatally to ensure adequate nutrition for optimal weight gain and preservation of lung function.