Profile

Frédéric Amant: leading the agenda on cancer in pregnancy

"Usually obstetricians and oncologists don't spend much time together", Frédéric Amant told *The Lancet*. "And this meant a certain group of women were not getting the care they needed: pregnant women with cancer." Providing the right care for these women is a key focus of Amant's work as Professor in the Department of Obstetrics and Gynaecology at the Catholic University of Leuven, Belgium. For Amant, an early experience of caring for a pregnant woman with cervical cancer was pivotal in shaping the course of his career: "She told me her early diagnosis was thanks to the pregnancy. So she wanted to give her baby the chance he had given her."

Amant's patients are a major influence on his work, but his first interest in medicine came much earlier during his childhood on his family's farm near Leuven, Belgium. Two of his uncles were training to be doctors as he grew up, "so I found myself buried in advanced medical texts well ahead of my years. I can't really remember wanting to be anything other than a doctor", he says. Although he retains an interest in nature that reflects his rural upbringing—he is a co-founder of a non-profit organisation that promotes forestation in Belgium—Amant followed his uncles into the profession and completed his medical degree at the Catholic University of Leuven. After training in obstetrics, gynaecology, and surgery, he specialised in gynaecological oncology. It's a specialty that he finds continually motivating because of "the challenges of complex surgery for a life-threatening disease, combined with personal contact with patients and research opportunities".

Amant is a lead author of *The Lancet*'s Series on malignancy in pregnancy. About one or two per 2000 pregnancies are complicated by cancer, with the most common being breast cancer (40%) and blood cancers (20%). Amant, who is Chair of the European Society of Gynaecological Oncology's task force on cancer in pregnancy, says that "this simply reflects the normal range of cancers in women of reproductive age, and there is nothing to suggest the pregnancy causes the cancers". The biggest challenge is educating the public that chemotherapy is possible in pregnancy without harm to the baby. "Women find it hard to believe they shouldn't have an aspirin, but can take these very strong chemotherapy drugs during pregnancy", Amant says. "At first, we did not have much evidence regarding the unborn children. But now more than 120 children have been born to women treated with chemotherapy in our ongoing international collaborative study, and they are doing as well as the general population, so that offers reassurance." Most of the babies who didn't do so well were born preterm after being induced early, rather than as a result of exposure to the drugs.

"Fear of chemotherapy should not be a reason to terminate pregnancy", Amant says, adding that "there is no evidence termination improves outcomes for the mother". And while it's true that radiotherapy poses more of a danger during pregnancy, especially later in the gestation, Amant says that "in most cases, especially breast cancer, women are started on chemotherapy (as they would be if not pregnant) and can then be treated with radiotherapy postpartum if necessary". The key messages Amant wants to come from the Series, and a related paper in *Lancet Oncology*, are "that it's rarely necessary to change the standard chemotherapy treatment regimen for pregnant women with cancer, and that chemotherapy does not harm the unborn child". He adds that "Staging scans should be limited to avoid overexposing the fetus to radiation, and radiotherapy of upper body parts with fetal shielding is possible during first and second trimester only."

Day to day, Amant's working life is an emotional roller coaster. While in most cases, mother and baby can be helped through this difficult time, there are always heartbreaking tales. As the father of four children himself, Amant recognises how painful these decisions can be for expectant parents. "Sometimes, a mother-to-be's cancer is so far advanced it kills her and her unborn child before anything can be done. In other advanced cases, the dying mother is kept alive, for example with a brain tumour in a coma—to enable the baby to be born to term", says Amant. "In other cases, the parents may decide to terminate the pregnancy because the father cannot go on alone. It is impossible to imagine how difficult such a decision would be", acknowledges Amant.

Alongside this clinical work, Amant has a strong research record. While still a registrar, his 1999 publication in the *British Journal of Obstetrics and Gynaecology* of a randomised trial of misoprostol for the prevention of post-partum haemorrhage lay the foundation for larger scale trials. As well as driving forward the agenda on cancer in pregnancy, he is an expert on uterine cancer. "It is Frédéric's ability to respectfully balance strong personalities as Principal Investigator in ground-breaking projects, as well as his generous contributions in other collaborative studies, that make him to a true leader", says Helga B Salvesen, from the University of Bergen, Norway, who co-founded the European Network for Individualized Treatment in Endometrial Cancer with Amant. Eric de Jonge, from the Department of Obstetrics and Gynaecology at Ziekenhuis Oost-Limburg, Belgium, agrees. "Frédéric's vision, work ethic, and his ability to establish durable contacts based on mutual professional respect have enabled him to build a remarkable research network. Supported by unconditional cooperation from his peers he drives 'his' pioneering project: cancer and pregnancy."

Tony Kirby

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For the **University Hospitals Leuven site on cancer in pregnancy** see http://www.uzleuven.be/en/kanker-en-zwangerschap/cancer-and-pregnancy

For **European Society of Gynaecological Oncology's task force on cancer in pregnancy** see http://www.esgo.org/Networks/Pages/TaskForces.aspx