



Difficult births in obese women due to uterus failure

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Liverpool, UK - 18 April 2007: Liverpool scientists have uncovered the reason why overweight women have more Caesarean sections; they are at significant risk of their uterus contracting poorly in childbirth.

In a study of 4,000 pregnant women, researchers found that almost 1 in 5 overweight women had to undergo an emergency Caesarean Section birth because the muscles in their uterus failed. The research suggests obesity impairs the ability of the uterus to contract sufficiently in order to dilate the cervix and deliver the baby.

The team from the University of Liverpool's Physiology department found that obese women were 3.5 times more likely to require a Caesarean for slow labour than normal weight women.

Obese women who gave birth vaginally were also found to encounter other problems in child birth – more than twice as many (6%) experienced excessive bleeding following delivery compared with normal weight women (3%). This blood loss was also attributed to poor uterine activity in the obese group. Heavy bleeding occurs when the uterus is unable to contract well enough to clamp off the blood vessels that are sheared following delivery of the placenta.

Professor Sue Wray commented: "Our research shows overweight women are at considerably higher risk of having to undergo an emergency Caesarean Section birth and find labour a more difficult experience than normal weight women. Interestingly, when we took uterus muscle samples from the overweight women and studied them in the lab they also performed poorly and contracted less well than matched samples from normal weight women".

The research team found that less calcium was able to enter the uterine cells of the obese women to support uterus muscles in contracting during labour.

Professor Wray explained: "We suspect one reason preventing sufficient levels of calcium entering the uterus muscles is the high levels of cholesterol in an obese woman's bloodstream. This could disrupt cell membranes and signalling pathways, including calcium entry. We will be investigating this further in future studies."

Dr Siobhan Quenby from the University of Liverpool's Obstetrics department commented: "In the meantime it is vital pre-pregnancy advice and counselling is available to women about the implications of weight on childbirth. Pregnancies among overweight women must be classified as high risk pregnancies and appropriate antenatal care should be provided so they receive the optimum care during maternity."

The research, funded by the Medical Research Council, has been published in the British Journal of Obstetrics and Gynaecology.

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