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AUSTRALIAN AND NEW ZEALAND COLLEGE OF ANAESTHETISTS

MEDIA RELEASE

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Oxytocin: the love hormone's new role in pain relief

Oxytocin, which brings on labour and is often called the "love hormone" for its role in human bonding, could play a role in managing chronic pain.

Visiting overseas expert, Professor Ruth Landau, from the University of Washington Medical Center in the United States, will talk about the hormone's other roles at an Australian and New Zealand College of Anaesthetists conference of more than 1300 anaesthetists, pain medicine specialists and trainees in Perth tomorrow.

Oxytocin is released during labour to promote contractions and delivery, and also stimulates milk production during breast feeding. It is believed to play a key role in maternal-infant bonding, sexual attraction and sexual function – hence its name "the love hormone".

More recently, it has been found to play a role in trust issues such as gambling and racism, as well as memory, facial recognition, identification of emotions, decision-making, learning, stress, depression, fear reduction and feeding behaviours. Its possible role in psychiatric disorders such as autism and schizophrenia is also being explored.

Professor Landau will tell the conference that this remarkable hormone may also have a role as a drug to control pain.

"Women who have caesarean sections are found to suffer less chronic pain than following other operations, such as hysterectomies. This is believed to be due to the release of oxytocin during labour," she says. "It is possible this hormone may have further therapeutic uses in helping to relieve pain."

Extremely obese pregnant women have higher risk of complications

Preliminary data from a bi-national study shows a higher incidence of complications for extremely obese women who are pregnant and an associated increased burden on maternity services.

The 2010 study, conducted by the Australasian Maternity Outcomes Surveillance System (AMOSS), showed that nearly 750 pregnant women in Australia and New Zealand were classified as having extreme morbid obesity, with a body mass index (BMI) of greater than 50 and/or a weight of over 140 kilograms. A healthy adult should have a BMI of between 20 and 25.

A detailed investigation on the Australian women in this study showed significantly higher rates of complications in extremely obese women both during pregnancy and

after birth, along with a high burden on resources. However, there were no deaths and the results indicated the high quality of care these women received.

Preliminary results showed nine per cent of these extremely obese pregnant women developed pre-eclampsia (compared with 2.6 per cent); 15 per cent had gestational diabetes (compared with 7 per cent); and 38 per cent had their labour induced (compared with 21 per cent). More than half (52 per cent) had a caesarean section, compared with 32 per cent of the other pregnant women, together with higher rates of general anaesthesia. There were associated higher rates of complications after birth including wound infections and admission to high dependency units.

The AMOSS research is one of the studies of rare, serious disorders of pregnancy across Australia and New Zealand, and will be presented at the conference by AMOSS Investigator Dr Nolan McDonnell from the King Edward Memorial Hospital for Women in Perth.

"The data suggests that rates of extreme obesity pregnancy are higher than the United Kingdom and they are increasing," Dr McDonnell says. "Based on this research, we encourage women who are obese to get expert assistance if they are planning a pregnancy, to lose weight beforehand, to limit weight gain during their pregnancy, and to ensure they have access to high-quality care to best manage their pregnancy."

World-renowned surgeon to talk about “fast-track surgery”

Danish surgeon, Professor Henrik Kehlet, pioneered the concept of “fast track surgery” programs in the 1990s that aim to reduce hospital stays and complications by introducing a range of small changes before, during and after surgery that can aid a patient’s recovery.

These changes focus on providing a “stress and pain free operation” and include better treatment and prevention of nausea and vomiting; improved treatment for blood clots; avoiding the use of catheters or removing them earlier; avoiding the use of other tubes such as surgical drain tubes or nasal gastric tubes; accelerating the patient’s return to feeding and walking after surgery; better use of antibiotics; less preoperative fasting; and no oral bowel preparation to clear the bowel.

Dr Kehlet will address the conference on the latest developments in this area.

For further information, or to attend the meetings or interview speakers, please contact ANZCA Media Manager, Meaghan Shaw, on +61 408 259 369 or email mshaw@anzca.edu.au. Please note, Perth is two hours behind AEST and four behind NZST. Follow us on Twitter @ANZCAnews.