



25 OCT, 2019

Surgery tweak a baby boon

Herald Sun, Melbourne

Surgery tweak a baby boon

Spina bifida targeted in the womb

BRIGID O'CONNELL

SURGERY on the spines of babies with spina bifida — an operation completed halfway through pregnancy — will be safer after a breakthrough by Melbourne researchers.

The simple change in surgical technique, now being used by doctors overseas, is a key milestone in the efforts of Monash Health doctors to bring this procedure to Australia in the next five years.

Up to 15 Australian babies are born each year with the most common form of spina bifida, where the developing spinal cord protrudes from the body.

A new type of keyhole surgery has started to be performed overseas while the baby is in the womb.

Surgeons reposition the foetal spinal cord and patch the hole to prevent spinal nerves from being damaged by exposure to amniotic fluid.

It can reduce the chance of

paraplegia and brain damage.

The cavity the surgeon needs to explore is pumped full of carbon dioxide gas to create space for the procedure and the video camera that will guide the operation.

Researchers from the Hudson Institute of Medical Research, led by Associate Professor Ryan Hodges and Professor Stuart Hooper, aimed to make this high-risk surgery safer for the foetus.

Medical student and PhD student Ben Amberg said while the benefit of carbon dioxide was that it dissolved easily in the blood steam after surgery, it lowered the pH of the blood and stressed the foetal heart so could harm the developing brain.

Working in sheep, the researchers found by heating and humidifying the gas to expand the uterus, less carbon di-

oxide was absorbed by the

foetus.

“When you add that bit of water vapour by humidifying it, that dilutes the gas down a bit and you get less that goes into babies,” Mr Amberg said.

“It seems to be the magic mix to help babies tolerate the surgery much better.”

Mr Amberg presented the findings at the International Foetal Medicine and Surgery Society meeting this week.

A more invasive type of the procedure, performed on a foetus while face down in the womb, is performed in Brisbane.

But Mr Amberg said now international hospitals had adopted their technique, it was another step on their way to bringing the keyhole surgery to Melbourne.

“These surgeries are life changing,” Mr Amberg said.

“To give these babies the opportunity to have some restoration of function, to give the

therapists something to work with, is what this is all about.”
brigid.oconnell@news.com.au

