Closing the gap in spinal surgery

Brisbane Private Hospital is first in Australia to trial a new device that prevents disc reherniation


Dr Adisa Kursumovic and Dr Paul Licina


Dr Paul Licina demonstrates how the device works


Dr Paul Licina with Dr Adisa Kursumovic

The first implantation of a new spinal device for use in patients undergoing lumbar discectomy surgery has taken place at Brisbane Private Hospital, which is set to become a training centre for doctors around Australia and Asia Pacific wanting to use the device.

Spinal surgeon Dr Paul Licina travelled to Europe to meet doctors who have been using the device overseas. Following his visit, renowned European neurosurgeon, Dr Adisa Kursumovic, flew to Australia in April to supervise the first surgeries at Brisbane Private Hospital.

The device is called a Barricaid Annular Closure Device and is designed to prevent disc reherniation.

Dr Licina said the device was used in eligible patients to close the defect that is left after a herniation is removed from a prolapsed or ruptured disc.

He said by closing this defect, the risk of reherniation and the need for a second surgery is substantially reduced.

"A disc herniation occurs when a partial or full tear in the annulus allows a portion of the nucleus to prolapse or herniate, which can place pressure on the nerves, causing pain down the leg called sciatica," Dr Licina said.

"Lumbar disc herniations are a common problem and discectomy is the most commonly performed spinal operation.

"The problem with these operations is that a hole is left where the herniation is removed. This leaves the spine weakened in that area with a high risk of the disc reherniating.

"Doctors have spent many years attempting to close this defect with a range of devices but none would stay in place due to the very high pressures in the disc.

"Barricaid has a titanium anchor which attaches into the bone, keeping it in place and a polymer mesh that closes the annular defect, preventing reherniation."

Who benefits?

Dr Licina said this device is a breakthrough in spinal surgery and would benefit the patients most at risk, which make up about one quarter of patients undergoing discectomy. These are the patients that have a large residual defect in the annulus and who are estimated to have up to a one in three chance of having a reherniation.

While it is very new to Australia, the device has been inserted in more than 3,000 patients overseas.

During her visit, Dr Kursumovic presented the preliminary results of a European multicentre randomised trial at the Spine Society of Australia's Annual Scientific Meeting in Brisbane and reported that there were no safety issues with the use of the device. The final results of this study will be available in two years.

The device has Therapeutic Goods Administration (TGA) approval in Australia and it is anticipated that it will receive a rebate code in August, meaning that its cost will be covered by private health funds. PH

By Karla Simpson