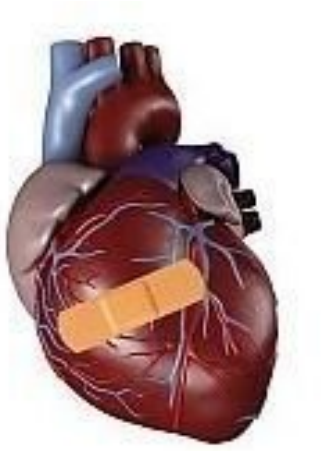
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CardioCel heals the heart by attracting stem cells

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CardioCel can do heart valve reconstruction



Singapore: Australia-based Allied Healthcare has demonstrated that its cardiovascular patches, CardioCel, promote healing at the site of repair of heart valves.Ã?Â The study was undertaken in collaboration with paediatric cardiac surgeon Professor Christian Brizard, from The University of Melbourne.

The histology data showed that after eight months there had been significant new tissue growth on both sides of the implanted CardioCel patch, consisting of collagen and several different cell types, which are typically found in a healthy cardiovascular healing process as well as in heart valves.Ã?Â In the study there was no evidence of macroscopic calcification of the CardioCel implant on echocardiography (heart ultrasound) and in molecular measurement of extractable calcium, the active CardioCel tissue had 40 percent less calcium than the control native autologous tissue.

"These results are remarkable, particularly regarding evidence that the CardioCel patch material appears to enable tissue regeneration, opening up the possibility for CardioCel treated valves to regenerate without additional intervention or assistance," said Mr Lee Rodne, Allied Healthcare's group managing director.

"As well as tissue regeneration, further evidence of the lack of calcification in the CardioCel tissue is very encouraging. Reduced calcification should result in the reduction of repeat surgeries, and therefore the reduction in unnecessary patient risk, stress and cost, promoting a lifelong solution for patients. These results provide further support to the importance and benefits of CardioCel in the area of tissue repair, reconstruction and regeneration," said Mr Bob Atwill, CEO, Regenerative Medicine Franchise.

The CardioCel scaffold appears to attract endogenous stem cells which allow normal cell growth, proliferation and differentiation into fully functional valve tissue. Current research indicates that a tissue matrix becomes incorporated into native tissue over time. These study results show that CardioCel becomes enveloped with endothelial cells via normal cell growth, suggesting it is invisible to the recipient immune system and becomes native tissue over time.

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