

- Title** Autologous Peripheral Blood Stem Cells For Articular Cartilage Repair
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[http://www.moh.gov.my/index.php/database\\_stores/store\\_view\\_page/30/195](http://www.moh.gov.my/index.php/database_stores/store_view_page/30/195)

**Aim**

To assess the efficacy and safety of autologous peripheral blood stem cells for articular cartilage regeneration

it could be recommended as standard treatment options for cartilage repair.

**Conclusions and results**

There were two studies on peripheral blood stem cells identified, a randomised controlled trial (in-press) and a case series. Unpublished long term non-comparative data on efficacy and safety were also obtained. Three studies on intra-articular mesenchymal stem cells were included as well.

**Written by**

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The usage of the new technique that “is the combination of the microfracture surgery or subchondral drilling, and the administration of hyaluronic acid and peripheral blood stem cells” is an innovation introduced by Dr Saw et al.

Limited good level of evidence showed that intra-articular injection of peripheral blood stem cells in combination with hyaluronic acid (HA) resulted in improvement of the quality of articular cartilage repair when compared to treatment with HA alone as observed from the MRI and histologic findings. The evidence showed that there was no serious adverse event or complications reported when applying this procedure

**Methods**

Literature was searched through electronic databases which included MEDLINE, Cochrane Library via Ovid, EMBASE, PubMed and general databases such as Google Scholar.

The search strategy used these terms either singly or in various combinations: Autologous peripheral blood stem cells, PBSC, cartilage injury, articular cartilage repair and osteoarthritis

The search was limited to human study. The last searched was conducted on 19 January 2013

**Further research/reviews required**

Multi centre studies such as prospective double blind RCT need to be conducted to gather more evidence to prove the reliability, efficacy and safety of this technology before