

## **Clinical safety in using unmatched allogeneic umbilical cord blood mononuclear cells transplantations in nonhaematopoietic degenerative conditions.**

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#### **Abstract**

**AIM:** Evaluation of safety in using unmatched human allogeneic umbilical **cord blood cells** for therapeutic use in individuals with nonhaematopoietic degenerative conditions.

**BACKGROUND:** The historical data and several recent immunological arguments suggest the therapeutic use of allogeneic **Cord Blood Mononuclear Cells** (CBMNCs), as these **cells** do not elicit immune response. Customarily, HLA matched **cord blood MNCs** are used along with prolonged immunosuppression in treatment of haematological conditions. Lately, unmatched CBMNCs are widely used in case of unavailability of HLA matched **cord blood**. There have been suggestions for using unmatched allogeneic **cord blood MNCs** for degenerative conditions without an immunoconditioning regimen.

**METHOD:** 49 patients with nonhaematopoietic degenerative conditions were treated with HLA unmatched allogeneic hUCB MNCs. Intrathecal/I.V injections (12 million **cells**/kg body weight) were given. Clinical, biochemical and haematological adverse events were evaluated.

**RESULTS:** The haematological and biochemical parameters showed no major deviation from the normal. Clinically, no acute adverse effects or GVHD were observed with the used dosage.

**CONCLUSION:** This study supports/suggests clinical safety in therapeutic medical use of unmatched allogeneic CBMNCs when used at low dosage in nonhaematopoietic degenerative conditions.

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