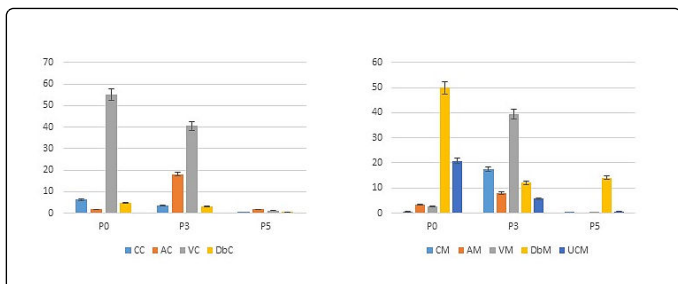








method of isolation. Both collagenase digestion and mechanical cutting resulted in a high amount of cells harvested but using an enzyme makes this process faster. All cells can be cryopreserved, banked, thawed and successfully cultured (data not shown).



**Figure 7:** Comparison of the mean CD200 expression in MSCs from chorion, amnion, villi, *Decidua basalis* and umbilical cord isolated using collagenase (CC, AC, VC, DbC) and mechanically (CM, AM, VM, DbM, UCM). P0, P3, P5-passages 0, 3, 5.

The therapeutic application of MSCs may be more promising due to their unique possibilities. The capacity of MSCs to differentiate into other types of cells and their immunomodulatory effects make these cells very important in future clinical research. The ability of MSCs to modulate immune response can be used in an inflammatory context: MSCs secrete cytokines which can inhibit inflammatory process. Using MSCs in GVHD disease [14,15], multiple sclerosis [16], joint diseases [17] and various inflammatory diseases [18] has proved successful.

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