عنوان مقاله:

Characteristics of the human endometrial regeneration cells as a potential source for future stem cell-based therapies: A lab resources study

محل انتشار:

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خلاصه مقاله:

Background: Human endometrium with consecutive regeneration capability undergoes monthly hormonal changes for probable implantation, which confirms the presence of the cells in the basalis layer known as stem cell. Objective: Previously, we reported the isolation and culture of the mesenchymal-like cells from human endometrium. In this study, we evaluated the biological and stemness characteristics of these cells. Materials and Methods: The characterization of Yazd human endometrial-derived mesenchymal stem/stromal cells (YhEnMSCs) was assessed using immunofluorescence (IF) staining for CD105, VIMENTIN, and FIBRONECTIN as markers and RT-PCR for CD166, CD10, CD105, VIMENTIN, FIBRONECTIN, MHCI, CD14, and MHCII genes. Flow cytometry (FACS) was performed for CD44, CD73, CD90, and CD105 markers. Moreover, the differentiation capacity of the YhEnMSCs to the osteoblast and adipocytes was confirmed by Alizarin Red and Oil Red staining. Results: YhEnMSCs expressed

CD105, VIMENTIN, FIBRONECTIN, CD44, CD73, and CD90 markers and CD166, CD10, CD105, VIMENTIN, FIBRONECTIN, and MHCI, but, did not express CD14, MHCII. Conclusion: Our data confirm previous reports by other groups indicating the application of endometrial cells as an available source of MSCs with self-renewal and .differentiation capacity. Accordingly, YhEnMSCs can be used as a suitable source for cell-based therapies

کلمات کلیدی:

,.Cell-based therapy, Endometrium, Mesenchymal stem/stromal cells, Regenerative medicine, Stem cells, Uterus
سلول درمانی, سلول های بنیادی/استرمایی مزانشیمی آندومتر, پزشکی بازساختی, سلول های بنیادی,
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