

叶绿素铜钠对免疫介导再生障碍性贫血小鼠骨髓间充质干细胞向成骨细胞的分化研究

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中文摘要: 目的探讨叶绿素铜钠对免疫介导再生障碍性贫血小鼠骨髓间充质干细胞(mesenchymal stem cells, MSCS)向成骨细胞分化的能力。方法建立免疫介导再障小鼠模型, 随机分为正常对照(N)、模型对照(M)、叶绿素铜钠小剂量(X)、叶绿素铜钠中剂量(Z)、叶绿素铜钠高剂量(G)、环孢菌素对照组(Cs)每组6只, 15天后观察血常规, 并取其骨髓MSCS培养, 比较F0MSCS、F1MSCS、F2MSCS、成骨细胞的形态学变化, 及钙结节计数。结果Z组小鼠的外周血白细胞数明显大于M组, M组小鼠的外周血红蛋白和血小板数明显小于其余5组。F2MSCS显微镜见各组长梭形的MSCS细胞比F0MSCS、F1MSCS的更加铺开而饱满。F3MSCS诱导后, 各组均可以见到成骨细胞, M组钙结节计数明显小于其余5组。结论叶绿素铜钠能明显促进免疫介导再障小鼠MSCS向成骨细胞分化的能力。

中文关键词: [叶绿素铜钠](#) [再生障碍性贫血](#) [骨髓间充质干细胞](#) [成骨细胞](#) [钙结节](#)

Effect of Sodium Copper Chlorophyll on Mesenchymal Stem Cells Differentiation into Osteoblasts in Immune-mediated Aplastic Anemia (AA) Mice

Abstract: Objective To investigate the effect of sodium copper chlorophyll on mesenchymal stem cells differentiation into osteoblasts in aplastic anemia (AA) mice. Methods Sixty AA mice were established and then divided into six groups: normal control group (N), model control group (M), low doses of sodium copper chlorophyllin group (X), moderate doses of sodium copper chlorophyllin group (Z), high dose of sodium copper chlorophyllin group (G), CsA control group (Cs). After being treated 15 days, their peripheral blood cells were observed. Then the MSCS of mice in each group were cultured. At last, the morphological changes of F0MSCS, F1MSCS, F2MSCS, osteoblasts and calcium nodules were compared in the light microscope. Results WBC in group Z were significantly more than group M, and the hemoglobin and platelet in group M were significantly lower than other 5 groups. Besides, spindle mesenchymal stem cells from the 2nd generation were more spread and full than from primary culture and 1st generation, and osteoblasts were observed in each group, and the calcium nodules were significantly less in group M than in other 5 groups. Conclusion Sodium copper chlorophyll could promote the differentiation capacity of MSCS to osteoblasts in AA mice.

keywords: [Sodium copper chlorophyll](#) [Aplastic anemia](#) [Mesenchymal stem cells](#) [Osteoblasts](#) [Calcium nodules](#)

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