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# Morphological Evaluation of Mesenchymal Stem Cells Derived from Adipose Tissue of Dog Treated with Different Concentrations of Nano-Hydroxy Apatite

**Authors :** K. Barbaro, F. Di Egidio, A. Amaddeo, G. Lupoli, S. Eramo, G. Barraco, D. Amaddeo, C. Gallottini

**Abstract :** In this study, we wanted to evaluate the effects of nano-hydroxy apatite (NHA) on mesenchymal stem cells extracted from subcutaneous adipose tissue of the dog. The stem cells were divided into 6 experimental groups at different concentrations of NHA. The comparison was made with a control group of stem cell grown in standard conditions without NHA. After 1 week, the cells were fixed with 10% buffered formalin for 1 hour at room temperature and stained with Giemsa, measured at the inverted optical microscope. The morphological evaluation of the control samples and those treated showed that stem cells adhere to the substrate and proliferate in the presence of nanohydroxy apatite at different concentrations showing no detectable toxic effects.

**Keywords :** nano-hydroxy apatite, adipose mesenchymal stem cells, dog, morphological evaluation
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