

References

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Suggested Reading

- Brunt J, Guptill L, Kordick DL, et al. American Association of Feline Practitioners 2006 panel report on diagnosis, treatment, and prevention of *Bartonella* spp infections. *J Feline Med Surg.* 2006;8(4):213-226.
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Research Note: Estradiol Effect on Bone-Marrow-Derived Mesenchymal Stem Cells

Fracture nonunion increases patient morbidity and healthcare costs. Bone grafts are often used in these defects but have several drawbacks. Bone-marrow-derived mesenchymal stem cells (BMSCs) may be an appealing alternative due to their trophic properties and immune-suppression function. 17 β -estradiol has been shown to improve the osteogenesis and proliferation potential of mesenchymal stem cells in humans. This study evaluated the effect of 17 β -estradiol on exploiting autologous BMSCs for healing of radial nonunion segmental defects in 20 rabbits. Through serial radiologic assessment and histopathologic evaluation, 17 β -estradiol was found to provide BMSCs with improved osteogenic capacity and an accelerated rate of bone healing.

Source

Mazdeh DZ, Mirshokraei P, Emami M, Mirshahi A, Karimi I. 17 β -estradiol improves the efficacy of exploited autologous bone marrow-derived mesenchymal stem cells in non-union radial defect healing: a rabbit model. *Res Vet Sci.* 2018;118:11-18.

Research Note: Effect of Cardiomyopathy & Diabetes Mellitus on SDMA in Cats

Considering the potential benefits of renoprotective nutritional treatment in cats in preazotemic stages of kidney disease, early diagnosis of kidney disease is critical. Symmetric dimethylarginine (SDMA) increases as glomerular filtration rates decrease, with a mean time of 17 months before serum creatinine elevations are observed. However, little is known about the influence of comorbidities on SDMA in cats. Human models have shown that SDMA may be influenced by other diseases. This study examined possible relationships between SDMA and hypertrophic cardiomyopathy and diabetes mellitus. In cats, SDMA does not appear to be affected by hypertrophic cardiomyopathy. However, diabetes mellitus appears to lower SDMA levels, making it a less predictable marker for cats with concomitant diabetes mellitus and chronic kidney disease.

Source

Langhorn R, Kieler IN, Koch J, Christiansen LB, Jessen LR. Symmetric dimethylarginine in cats with hypertrophic cardiomyopathy and diabetes mellitus. *J Vet Intern Med.* 2018;32(1):57-63.