Osteoporosis after stem cell transplantation

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Background
Stem cell transplantation has become as a novel treatment for end-stage kidney, lung, heart , liver diseases and several hematologic disorders. Improved survival of transplant recipients has raised awareness of post-transplant complications. One of these complications is transplant-related osteoporosis.

Methods
In this manuscript we review prevention methods for transplant-related osteoporosis according to the literature.

Results
Transplant-related osteoporosis is due to both pre-transplant and post-transplant factors. The most common pre-transplant factor is low bone mineral density related to the underlying disease. The most common post-transplant factor is consumption of immunosuppressive regimens. Bone loss is most rapid in the first 6 to 12 months after transplantation with subsequent slowing thereafter, due to a reduction in immunosuppressive dose and resolution of pretransplant conditions that were deleterious to skeletal health. For prevention of this problem it is recomm
ended to measurement of bone mineral density before transplantation. Also all patients should receive counseling about quit smoking, early mobilization after transplantation, regular weight-bearing exercise and fall prevention. Patients should receive 1000 mg/day of calcium and 800 units/day of vitamin D before transplantation. Higher vitamin D doses should be given for patient with vitamin D deficiency. The lowest prednisone dose compatible with graft survival is recommended.

Conclusion
It is necessary to consider preventive measures for reduce transplant-related osteoporosis**.**

Keywords: Osteoporosis, Stem cell, Transplantation.

Poster Presentation

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