Abstract:
Short stemmed-THA is considered as a conservative implant removing minimal amount of bone from the femoral side and favoring physiological bone remodeling. These implants avoid stress over load and stress shielding in the proximal femur. The intent of the design increases the proximal load transfer and therefore reduces femoral bone resorption. The geometrically based wedge-shaped in both AP and lateral planes of these short stem prosthesis allow immediate stability from multiple points contact of the femoral stem inserted into a regularly shaped cavity prepared by the surgeon. Bone mineral density analysis after insertion of short stem THA using DEXA demonstrated no or minimal bone resorption in the proximal femoral region especially when compared to conventional stems.