SHORT STEM FEMORAL COMPONENT IN PRIMARY HIP ARTHROPLASTY

Thesis

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in Orthopedics

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Abstract

Redistribution of bone mass from the proximal to more distal zones reported in conventional stems reflecting distal load transfer to diaphyseal area. While increased bone density was observed in the proximal periprosthetic area in the short stem design.Factors affecting bone remodeling after THA, include patient-related factors such as sex, age, underlying disease and quality of bone before the hip replacement, and also implant-related factors such as size, stiffness, surface finish and postoperative implant stability Short stem hip arthroplasty is a reliable procedure resulting in excellent implant fixation and a predictable clinical outcome in the short term. This study have shown low rates of mechanical failure in a series of relatively young and active patients, but long-term outcome assessments are required to determine whether this type of fixation will stand the test of time.

Keyword:(BMD-THA-DEXA- Co-Cr-BMMA)

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List of Abbreviations

Abb.	Meaning

BMC..... Bone mineral content

BMD .....Bone Mineral Density

BMI ..... Body Mass Index

Co-Cr.....Cobalt chromium

DEXA..... Duel Energy X-ray Absorptiometry

DVT ..... Deep Venus Thrombosis

FEA ..... Finite Element Analysis

HA ..... Hydroxyapatite

HHS..... Harris Hip Score

HO .....Heterotopic ossification

LLD..... Limb Length Discrepancy

PMMA ..... Polymethylmethacrylate

PCA …… Patient controlled analgesia

ROI .....Region of Interest

THA ..... Total hip arthroplasty

THR..... Total hip replacement

Ti .....Titanium

UCLA ..... University of California, Los Angeles activity scale