Role Of Diagnostic Imaging in Evaluation Of Total Hip Arthroplasty

Essay
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Abstract

Total hip arthroplasty is a common and effective operation with a high success rate. The purpose of this essay is to review the appearance of normal successful hip arthroplasty and accepted post-operative changes as well as the appearance of complications such as osteolysis, infection, aseptic loosening as well as periprosthetic and component fracture. Knowledge of the potential complications and their imaging appearances will help in the diagnostic evaluation of the patient with a total hip arthroplasty. Moreover highlight the accepted post-operative changes will be beneficial not to be overestimated as a complication.

Key Words:

Total hip arthroplasty – post operative evaluation – successful - complicated

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LIST OF ABBREVIATIONS

CT :	Computed tomography
FDG :	F-fluorodeoxyglucose
FOV :	Field of vision
FSE :	Fast spin echo
FSEIR :	Fast spin echo inversion recovery
HO :	Heteropic ossification
KVP :	Kilo voltage peak
MARS :	Metal artifact reduction sequence
mAs	Milliamperes
MAVRIC :	Multi-acquisition variable resonance image contribution
MDCT :	Multi detector computed tomography
MDP :	Methyl diphosphonate
MRI :	Magnetic resonance image
NEX :	Number of excitations
NSA :	Neck shaft angle
PE :	Pulmonary embolus
PET :	Positron emission tomography

List of abbreviations

PMMA :	Polymethylmethacrylate
RBW :	Recieved band width
SEMAC :	Slice encoding for metal artifact correction
SPECT :	Single positron emission computed tomography
STIR :	Short time inversion recovery
Tc- 99m HMPAO :	Technetium- 99m Hydroxy methyl propylene amine oxime
TE :	Time to echo
THA :	Total hip replacement
TI :	Time to inversion
TR :	Time to repeat
VTE :	Venous thromboembolism

LIST OF FIGURES