



Accuracy of plain antero-posterior radiographic-based methods for measurement of acetabular cup version

Mohammad Ali Alzohiry, Mohammad Kamal Abdelnasser, Mohamed Moustafa, Mohamed Mahran, Hatem Bakr, Yaser Khalifa, Ahmed Abelaal, Haisam Atta, Galal Zaki Said

Abstract:

Introduction Acetabular cup version is crucial for successful total hip arthroplasty (THA). Many methods have been described for measurement of cup version angle. The aim of this study is to assess the accuracy of five commonly used methods for measurement of acetabular cup version in plain antero-posterior views of the pelvis and hip. **Material and methods** Sixty primary THA cases were subjected postoperatively to plain A-P of the pelvis (AP-P), A-P view of the hip (AP-H), and computed tomography (CT) imaging. The acetabular cup version was measured in AP-P and AP-H by five methods (Lewinnek, Widmer, Hassan et al., Ackland et al., and Liaw et al.). These measurements were compared to the CT measurement. **Results** All plain X-ray methods showed no significant differences from the CT, except □

Published In:

International orthopaedics , 42-12 , 2777-2785