INTRODUCTION

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Hip replacement with the use of small incisions has been practiced selectively by a few practitioners for many years, but only in the last several years has so-called ***(minimally invasive hip replacement)*** been widely introduced to the majority of orthopedic surgeons. Minimally invasive hip replacement, in fact, is not a single type of surgery but rather a family of operations designed to allow total hip replacement to be done through smaller incisions, potentially with less soft-tissue disruption ***(Digioia AM et al., 2003).***

The three main methods involve: 1) a combination of a small incision and a posterior approach to the hip, 2) a combination of a small incision and an anterior approach to the hip, or 3) two small incisions performed with use of the Smith-Peterson interval for acetabular placement and the approach usually used for femoral intramedullary nailing for femoral component insertion ***(Digioia AM et al., 2003).***

The development of minimally invasive THR using a 'single 6–10 cm incision' heralds a new development in surgical technique for this procedure ***(Chimento and Sculco, 2001)***.

The two-incision technique was first performed by Berger in 2000 ***(Berger, 2003)***.

Minimally invasive total hip arthroplasty has created much controversy among orthopedic surgeons and a great deal of publicity in the popular press. Advocates emphasize the potential for these methods to reduce soft- tissue trauma and thereby reduce operative blood loss, postoperative pain ***(Matthews E& Kelly P, 2003)***, and hospitalization time;

speed the postoperative recovery; and improve the cosmetic appearance of the surgical scar ***(Muirhead-Allwood S, 2004).***

Advocates view minimally invasive total hip arthroplasty as a logical extension of less invasive methods that have revolutionized other fields, such as arthroscopy, laparoscopic cholecystectomy, and cardiac surgery, just to name few ***(Muirhead-Allwood S, 2004).***

Those with reservations about minimally invasive total hip replacement point out that conventional hip replacement already provides excellent pain relief, functional improvement, and durability with a low complication rate. Skeptics are concerned that minimally invasive procedures introduce new potential problems related to: reduced visualization at the time of the operation, such as implant malposition, neurovascular injury, poor implant fixation, or compromised long-term results.... Indeed, (***Woolson et al, 2004)*** recommended that further analysis of this new technique is required before it can be recommended for widespread use ***(Woolson et al., 2004).***

As supporting index; 37,800 (THRs) are carried out in England and Wales every year. It is an extremely successful procedure, which has evolved through a series of implants and operative techniques ***(NICE, 2005).***