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Anterior vs. Posterior Approach Total Hip Arthroplasty: A Critically Appraised Topic

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Total hip arthroplasty (THA) has been shown to consistently improve function and quality of life in patients with late stage degenerative joint disease. Conflicting opinions exist regarding the efficacy of the direct anterior approach (DAA) and posterior approach (PA) for THA on satisfactory patient outcomes. The Harris Hip Score (HHS) is a commonly used patient-related outcome measure to assess both pain and function pre- and post-operatively. Using the HHS to compare DAA and PA may be beneficial in determining which surgical method is more efficacious for patient satisfaction. **PURPOSE:** The purpose of this investigation was to determine if the literature supports the use of HHS to identify better patient-related outcomes among patients who have undergone either DAA or PA for THA. **METHODS:** A computerized search of MEDLINE, PubMed, and Science Direct was conducted to identify pertinent references. The inclusion criteria were: (1) patients who underwent THA using the DAA or PA; (2) Centre for Evidence Based Medicine (CEBM) Level 3 or higher; (3) published in English language in peer-reviewed sources within the last 10 years; and (4) reported composite HHS for both surgical approaches. **RESULTS:** The literature search revealed sixty-four (64) studies for review; 5 met all inclusion criteria. Specific data extracted included the study design, surgical approach used, the HHS score pre-and post-operatively, and the length of time of follow up. No significant differences were found in the mean difference of HHS between DAA and PA at 2-3 weeks (25.55 ± 18.07 ; 23.7 ± 16.76 , $t(172) = -0.07$, $p = 0.48$); 6 weeks (37.8 ± 26.7 ; 37.7 ± 26.66 , $t(172) = -0.07$, $p = 0.99$); 8-12 weeks (30.86 ± 21.88 ; 29.25 ± 20.67 , $t(210) = -0.55$, $p = 0.58$); nor 6 months (52.01 ± 36.78 ; 46.79 ± 33.09 , $t(118) = -0.82$, $p = 0.41$). **CONCLUSION:** The literature does not support a difference between DAA and PA for patient pain and function based on HHS at multiple follow up points from two weeks through six months. The preferred surgical approach should be determined in conjunction with physician comfort and preference as well as other clinician and patient related outcomes.