

Browser's Notes

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Duplex ultrasonography has limited utility in detection of postoperative DVT after primary total joint arthroplasty.

Vira S, et al.
HSS J. 2016; 12(2):132–6

Medical records of 1,793 patients who received a primary total joint arthroplasty (910 knee, 883 hip) revealed 295 (16.5 %) who had a postoperative (mean 3 days following operation) venous duplex ultrasound (US) examination for suspicion of deep venous thrombosis (DVT). US was most commonly performed for symptoms of tachycardia, desaturation, calf or thigh pain, or calf swelling. Only 2 (0.7 %) patients had positive results and neither proved to have, or to develop, a pulmonary embolism (PE). The authors estimated the cost of detecting each DVT to be over \$31,000 based on the Medicare reimbursement rate for the duplex US. In contrast, there were 103 (35 %) patients that underwent a chest CT-angiogram for suspicion of PE in addition to the US. Twenty-six (8.8 % of 295) proved to have a PE, and none of the patients with PE had a positive duplex US. The authors conclude that duplex venous US is of limited utility in patients following arthroplasty and a CT-angiogram is indicated when there is clinical suspicion of DVT/PE, even if there has been a negative result for venous duplex US.

Elevated D-dimer is not predictive of symptomatic deep venous thrombosis after total joint arthroplasty.

An TJ, et al.
J Arthroplasty. 2016; 31(10):2269–72

In a completely separate study, plasma D-dimer levels were measured four times for patients undergoing a primary total knee (TKA, $n = 118$) or hip (THA, $n = 57$) arthroplasty: preoperatively, between surgery and hospital discharge, and at 2 weeks and 6 weeks postoperative. None of the patients had

clinical symptoms or suspicion of deep venous thrombosis (DVT) during the study. Serum D-dimer was elevated at all postoperative time points to levels where further investigation for DVT is recommended. D-dimer levels peaked at 2 weeks (5.2 for TKA, 4.2 for THA) and remained significantly elevated at 6 weeks (2.7 for TKA, 1.4 for THA). Since no patients had a symptomatic DVT, it appears that elevated D-dimer may be a normal occurrence following uncomplicated joint arthroplasty and may not be a useful screening tool for postoperative DVT.

Rate and predisposing factors for sacroiliac joint radiographic progression after a two-year follow-up period in recent-onset spondyloarthritis.

Dougados M, et al.
Arthritis Rheumatol. 2016; 68(8):1904–13

Baseline and 2 year pelvic radiographs were obtained from 449 patients (mean age 34 years, 47 % male) enrolled in a multicenter observational study, the Devenir des Spondyloarthropathies Indifférenciées Récentes (DESIR) cohort. All patients had clinically diagnosed inflammatory back pain with symptoms suggestive of spondyloarthropathy. Radiographs were graded using the modified New York method for radiographic signs of sacroiliitis. 326 patients (73 % of study group) had no radiographic changes at baseline (non-radiographic axial spondyloarthritis), and only 16 (4.9 %) of these showed structural progression at 2 years to radiographically evident spondyloarthropathy. Multivariate analysis of baseline criteria found smoking (odds ratio 3.3), positive HLA-B27 (odds ratio 12.6), and sacroiliac bone marrow edema-like signal (odds ratio 48.8) to be significant predisposing factors for radiographic progression.

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