

#6 SURVEILLANCE VENOUS DUPLEX IS NOT CLINICALLY USEFUL AFTER TOTAL JOINT ARTHROPLASTY WHEN EFFECTIVE DVT PROPHYLAXIS IS EMPLOYED

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The early detection of deep venous thrombosis (DVT) and treatment with systemic anticoagulation to prevent pulmonary embolism (PE) are essential in the management of patients undergoing total joint arthroplasty (TJA). However, improvements in prophylactic measures have significantly decreased the occurrence of DVT in these patients.

The purpose of this study was to determine whether routine postoperative duplex surveillance for DVT remains clinically useful. The medical records of all patients undergoing total knee or total hip arthroplasty between October, 1997 and January, 2002 at a University Hospital and its VA affiliate were reviewed. The type of operation and occurrence of complications (e.g. DVT, PE, and hemorrhage) were noted. All patients were treated postoperatively with both enoxaparin 30 mg BID and bilateral lower extremity sequential compression devices (SCDs). A venous duplex scan was performed prior to discharge.

Three hundred ninety-eight patients underwent 441 TJAs, 149 hips and 292 knees. The average age was 65 years (range 23-95). Venous duplex scans were performed within one week (median = 4 days) of operation. Initial inpatient scans revealed acute, ipsilateral DVT in 5 patients (1.3%). Four patients experienced documented PEs; 3 had negative in-hospital duplex scans, and PE occurred after hospital discharge in 2 patients. One of the 398 patients did not have a duplex scan as an inpatient, and returned 6 weeks later with a popliteal DVT. Complications included one upper GI hemorrhage, and one patient died postoperatively of unknown causes.

These data demonstrate that routine postoperative venous duplex scans rarely found DVT (5 of 398 patients) after TJA when effective prophylaxis was used. Furthermore, surveillance scanning did not permit reliable prediction of PE. Therefore, we conclude that postoperative inpatient surveillance duplex scans for DVT in patients undergoing TJA can be eliminated without significant adverse effect on clinical outcomes.