Preventing Venous Thromboembolism in Surgical Oncology Patients (SON Newsletter page 6)

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- 1. Khorana AA, Francis CW, Culakova E, Kuderer NM, Lyman GH. Thromboembolism is a leading cause of death in cancer patients receiving outpatient chemotherapy. J Thromb Haemost 2007; 5(3):632-634.
- Geerts WH, Bergqvist D, Pineo GF et al. Prevention of venous thromboembolism: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition). Chest 2008; 133(6 Suppl):381S-453S.
- 3. Collins R, Scrimgeour A, Yusuf S, Peto R. Reduction in fatal pulmonary embolism and venous thrombosis by perioperative administration of subcutaneous heparin. Overview of results of randomized trials in general, orthopedic, and urologic surgery. N Engl J Med 1988; 318(18):1162-1173.
- 4. Horlocker TT, Wedel DJ, Benzon H et al. Regional anesthesia in the anticoagulated patient: defining the risks (the second ASRA Consensus Conference on Neuraxial Anesthesia and Anticoagulation). Reg Anesth Pain Med 2003; 28(3):172-197.
- 5. Leonardi MJ, McGory ML, Ko CY. A systematic review of deep venous thrombosis prophylaxis in cancer patients: implications for improving quality. Ann Surg Oncol 2007; 14(2):929-936.
- 6. Efficacy and safety of enoxaparin versus unfractionated heparin for prevention of deep vein thrombosis in elective cancer surgery: a doubleblind randomized multicentre trial with venographic assessment. ENOXACAN Study Group. Br J Surg 1997; 84(8):1099-1103.
- 7. Kakkar VV, Cohen AT, Edmonson RA et al. Low molecular weight versus standard heparin for prevention of venous thromboembolism after major abdominal surgery. The Thromboprophylaxis Collaborative Group [see comments]. Lancet 1993; 341(8840):259-265.
- 8. McLeod RS, Geerts WH, Sniderman KW et al. Subcutaneous heparin versus low-molecular-weight heparin as thromboprophylaxis in patients undergoing colorectal surgery: results of the canadian colorectal DVT

prophylaxis trial: a randomized, double-blind trial. Ann Surg 2001; 233(3):438-444.

- Bergqvist D, Burmark US, Flordal PA et al. Low molecular weight heparin started before surgery as prophylaxis against deep vein thrombosis: 2500 versus 5000 XaI units in 2070 patients [see comments]. Br J Surg 1995; 82(4):496-501.
- Balibrea JL, Altimiras J, Larruzea I, Gomez-Outes A, Martinez-Gonzalez J, Rocha E. Optimal dosing of bemiparin as prophylaxis against venous thromboembolism in surgery for cancer: an audit of practice. Int J Surg 2007; 5(2):114-119.
- 11. Semrad TJ, O'Donnell R, Wun T et al. Epidemiology of venous thromboembolism in 9489 patients with malignant glioma. J Neurosurg 2007; 106(4):601-608.
- 12. Iorio A, Agnelli G. Low-molecular-weight and unfractionated heparin for prevention of venous thromboembolism in neurosurgery: a meta-analysis. Arch Intern Med 2000; 160(15):2327-2332.
- 13. Perry JR, Rogers L, Laperriere N et al. PRODIGE: A phase III randomized placebo-controlled trial of thromboprophylaxis using dalteparin low molecular weight heparin (LMWH) in patients with newly diagnosed malignant glioma. J Clin Oncol 2007;25[18S], abstract #2011.
- Clarke-Pearson DL, Coleman RE, Synan IS, Hinshaw W, Creasman WT. Venous thromboembolism prophylaxis in gynecologic oncology: a prospective, controlled trial of low-dose heparin. Am J Obstet Gynecol 1983; 145(5):606-613.
- 15. Einstein MH, Pritts EA, Hartenbach EM. Venous thromboembolism prevention in gynecologic cancer surgery: a systematic review. Gynecol Oncol 2007; 105(3):813-819.
- Kearon C, Kahn SR, Agnelli G, Goldhaber S, Raskob GE, Comerota AJ. Antithrombotic therapy for venous thromboembolic disease: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition). Chest 2008; 133(6 Suppl):454S-545S.
- 17. Lyman GH, Khorana AA, Falanga A et al. American Society of Clinical Oncology guideline: recommendations for venous thromboembolism

prophylaxis and treatment in patients with cancer. J Clin Oncol 2007; 25(34):5490-5505.

- Bergqvist D, Agnelli G, Cohen AT et al. Duration of prophylaxis against venous thromboembolism with enoxaparin after surgery for cancer. N Engl J Med 2002; 346(13):975-980.
- Lausen I, Jensen R, Jorgensen LN et al. Incidence and prevention of deep venous thrombosis occurring late after general surgery: randomised controlled study of prolonged thromboprophylaxis. Eur J Surg 1998; 164(9):657-663.
- 20. Agnelli G, Bolis G, Capussotti L et al. A clinical outcome-based prospective study on venous thromboembolism after cancer surgery: the @RISTOS project. Ann Surg 2006; 243(1):89-95.
- 21. Amaragiri SV, Lees TA. Elastic compression stockings for prevention of deep vein thrombosis. Cochrane Database Syst Rev 2000;(3):CD001484.
- 22. Turpie AG, Gallus A, Beattie WS, Hirsh J. Prevention of venous thrombosis in patients with intracranial disease by intermittent pneumatic compression of the calf. Neurology 1977; 27(5):435-438.
- 23. Kakkos SK, Caprini JA, Geroulakos G, Nicolaides AN, Stansby GP, Reddy DJ. Combined intermittent pneumatic leg compression and pharmacological prophylaxis for prevention of venous thromboembolism in high-risk patients. Cochrane Database Syst Rev 2008;(4):CD005258.