

menopausal symptoms. Other than control of symptoms, more than 5 years of therapy is required for manifestation of either risks or benefits. As the risk profile will differ for each patient considering HRT, family physicians must individualize their recommendations. Decisions will be best made jointly between physician and patient, in the context of a frank discussion of all the potential benefits and risks.

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## CLINICAL ASSESSMENT OF DEEP-VEIN THROMBOSIS

TITLE: Accuracy of clinical assessment of deep-vein thrombosis

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**Clinical question.** Is the clinical examination useful for estimating the probability of deep-vein thrombosis (DVT) in nonhospitalized patients?

**Background.** It is not uncommon for an office-based physician to assess a patient with pain or swelling in a lower extremity. Estimating the chance that DVT is present should be central to the decision of whether to send the patient for further evaluation. Once test results are known, this same estimate could help the physician calculate the posttest probability of DVT.

Earlier studies have suggested that the clinical examination and history are not very helpful in diagnosing DVT; however, these studies focused on hospitalized patients.<sup>1,2</sup> The diagnostic value of signs and symptoms can be very different in the outpatient setting.<sup>3</sup> Previous studies also overlooked some data readily available to physicians, including a patient's risk factors for DVT and whether there was another likely diagnosis for a patient's findings. This study addresses these deficiencies.

**Population studied.** All outpatients referred for the evaluation of suspected DVT were invited to enter the study if they did not have a history of prior DVT or pulmonary embolus (PE), were not pregnant, did not have a lower extremity amputation, were not suspected to currently have a PE, and if the duration was less than 60 days. What this study does not include are the patients who were not referred to the

Table. Factors Predictive of Deep Vein Thrombosis

Major factors
Active cancer
Paralysis or recent casting of a lower extremity
Recently bedridden for more than 3 days and/or major surgery within 4 weeks
Localized tenderness along the deep venous system
Swollen thigh and calf (by measurement)
Calf swelling >3 cm on symptomatic leg
Strong family history of DVT
Minor factors
Hospitalization in previous 6 months
Trauma to leg in past 60 days
<i>In the symptomatic leg only:</i>
Pitting edema
Dilated superficial veins (nonvaricose)
Erythema

High probability (85% will have DVT): No alternative diagnosis with a minimum of either 3 major factors or 2 major and 2 minor factors.

Low probability (5% will have DVT): (1) No alternative diagnosis with a maximum of either 1 major factor and 1 minor factor, or no major factors and 2 minor factors; (2) an alternative diagnosis with a maximum of either 1 major factor and 2 minor factors, or no major factors and 3 minor factors.

Moderate probability (33% will have DVT): All patients without a high or low probability of DVT.

hospital because the office-based physicians who assessed them did not feel hospital evaluation was warranted.

**Study design.** The study was a prospective investigation in the outpatient departments of three medical centers, two in Canada and one in Italy. Clinical data included results of the physical examination, any recent history of immobilization, surgery, cancer, or trauma, and any strong family history of DVT. At two centers, patients also underwent compression ultrasonography, interpreted by a panel who were blinded to the clinical history and other test data.

Contrast venography, which all patients underwent, was the "gold standard" with which clinical estimation was compared. Contrast venography was interpreted by a panel blinded to the patient's clinical history and the results of any other imaging tests. The result of the index test (clinical estimation) was not used to decide whether the gold standard test was performed. When patients came to the hospital, they were entered into the study before any clinical data were collected.

**Results.** The investigators created a checklist of seven major and five minor factors, which, when combined with knowledge about alternative diagnoses, accurately predicted the probability of DVT (Table).

There was excellent agreement between physicians when they independently collected the clinical data. The percentage of patients in each diagnostic category that actually had DVT did not differ significantly at the three study sites. Compression ultrasonography was found to have high specificity in all three probability groups (98% to

100%) but a higher sensitivity in the high probability group (91%) than in the low and moderate probability groups (61% and 67%, respectively).

**Recommendations for clinical practice.** Primary care physicians can use clinical data for estimating the probability of DVT in a nonhospitalized patient. Clinical data should affect how we use the result of venous sonography, especially when the test result does not concur with our clinical impressions. Based on these data, we can conclude that one third of low-probability patients with positive sonograms will not have DVT. While a negative sonogram rules out DVT in this group, a positive sonogram in this group should be followed up by venography to confirm the diagnosis. In contrast, one third of high-probability patients with negative sonograms will actually have DVT. While a positive sonogram is diagnostic of DVT in the high-probability group, a negative sonogram in a high-probability patient should be followed by a venogram. In patients with moderate clinical probability of DVT, both positive and negative sonograms are fairly diagnostic and can be used as the basis for treatment decisions.

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## ELECTROSURGICAL LOOP EXCISION OF THE CERVICAL TRANSFORMATION ZONE

**TITLE:** Electrosurgical loop excision of the cervical transformation zone: the experience of family physicians

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**Clinical question.** Should family physicians perform electrosurgical loop excision of the cervical transformation zone?

**Background.** Cervical dysplasia is a common problem that has been treated by a variety of methods over the years,

including cone biopsy, cryotherapy, laser ablation, and, more recently, electrosurgical loop excision of the transformation zone (ELECTZ), also referred to as "loop electrosurgical excision procedure" (LEEP). The procedure is generally performed in the outpatient setting under local anesthesia. A loop electrode is used to excise abnormal tissue, and, in the case of ELECTZ, the entire cervical transformation zone. The entire specimen can then be submitted for pathologic analysis. Possible advantages of this procedure include the ability to detect occult invasive cancer, and the potential to decrease the number of visits required for diagnosis and treatment.

**Population studied.** Study subjects were recruited from women scheduled for ELECTZ in the practices of six family physicians at five practice sites. All physicians in the study were experienced colposcopists. Four practice sites were located at medical schools; the fifth private practice site is associated with the National Procedure Institute. A total of 198 women were recruited for the study; the mean age was 25.5 years (range 15 to 65); 37% were nulliparous, 40% were current smokers, and 15% had been previously treated for cervical dysplasia, primarily by means of cryotherapy. No information is provided about either ethnicity or socioeconomic status or about patients not participating in the study because of exclusion criteria or refusal.

**Study design and validity.** The study is a descriptive report of a large case series, focusing on short-term outcomes and complications for ELECTZ and ELECTZ conization procedures performed by family physicians. Women were considered eligible for inclusion in the study and performance of the procedure if they had any evidence of cervical dysplasia, which could include cytologic or colposcopic findings. Histologic confirmation of dysplasia was not required before performing the procedure. This approach contradicts recent interim guidelines for management of abnormal Papanicolaou smears released by a committee of the National Cancer Institute.<sup>1</sup> The possible effects of loss to follow-up on the reported results were not considered in the analysis. Major limitations to the study design include the following: (1) no conclusions can be drawn about appropriate indications for this procedure as it was not directly compared with other forms of treatment for cervical dysplasia, and (2) the location of practice and degree of expertise of the participating physicians make it difficult to generalize the results of this study to usual practice for community-based family physicians.

**Outcomes measured.** Histologic results of the ELECTZ procedures were compared with previous cervical biopsy specimens, when these were performed. The frequency of