DVT Prevention: Mobile Compression Device vs Low-molecular-weight Heparin

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What role does the mobile compression device play in the future of deep vein thrombosis (DVT)?

The mobile compression device will provide a novel method of prophylaxis in the disease entities of both DVT and pulmonary embolism (PE). In many instances, it will replace pharmacological methods, specifically in the surgical and trauma subspecialties where the bleeding risk of drugs is significant.

Will the mobile compression device ever fully replace low-molecular-weight heparin?

There will always be a role for pharmacological agents, specifically in the treatment of established DVT or PE and in the few patients who are unable to tolerate the device or with a very small risk of bleeding. The type of drugs used changes constantly as they improve in safety and efficacy.

Is there a cost benefit to using the mobile compression device?

Cost benefit is always difficult to evaluate, as there are multiple factors that influence that formula. The actual cost of the instrument to the patient or insurer is equal to the cost of present drug protocols, but there are additional savings due to the lack of major bleeding and the associated costs of that complication.

How does the cost compare to traditional nonportable devices used in hospitals?

The hospital cost is similar, but there is the additional cost of home use, which is similar to home use of comparable drug protocols.

How much of the overall success of the mobile compression device in controlling bleeding is dependent on patient compliance?

The benefits of patient compliance, which have been shown in multiple studies of compression devices, are in the efficacy of the prevention of venous thromboembolism rather than the issue of bleeding.
The results from your study are promising in that the use of a portable compression device was more effective in controlling bleeding compared to low-molecular-weight heparin. What impact do you believe it will have?

The study results have just been published and there is already a significant demand for the device. I believe that there will also be significant effort from the entire device industry to develop a competitive product.

What future studies will need to be performed to determine the best method to prevent DVT after THA?

There is always a need for additional studies to test the efficacy and safety of new modalities and discoveries. The next study we are embarking on is the study of this device in thousands of patients now being managed in this manner with the endpoint being the incidence of symptomatic DVT or PE within 3 months after discharge. This is important to practicing physicians and their patients.

REFERENCE