Blood thinner may protect cancer patients from potentially fatal clots

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A new type of anti-clotting drug called semuloparin has been found to reduce the development of potentially fatal blood clots in the veins that often occur in cancer patients, doctors at Duke Cancer Institute and elsewhere reported today.

In a large phase III clinical trial involving 3,212 cancer patients, semuloparin provided a 64 percent reduction in the risk of venous thromboembolism (VTE), the blockage of an artery, compared to placebo, the study's authors reported at the 2011 annual meeting of the American Society of Clinical Oncology.

"Venous thromboembolism is a leading cause of death among cancer patients," said Daniel George, MD, director of genitourinary medical oncology at Duke University Medical Center and one of the study authors. "But we don't do much to prevent these events. We need interventions to reduce this risk of complication."

The drug, an ultra-low-weight heparin manufactured by Sanofi, had previously shown benefit in preventing blood clots among orthopaedic surgery patients, who tend to develop VTEs from lengthy recuperations that keep them from being active.

Among cancer patients, though, VTEs appear to stem from a link between tumor biology and processes that cause blood to coagulate. Studies have shown that patients with cancer have nearly a six-fold increased risk of VTE compared with non-cancer patients, accounting

for about 20 percent of all new VTE events. Chemotherapy use further increases this risk.

Currently, blood thinners are offered to cancer patients when a clot is discovered, either as a deep vein thrombosis or pulmonary embolism; the clots can be deadly when they dislodge and travel to the lungs.

The study -- which was sponsored by the drug's manufacturer, Sanofi -- tested the use of semuloparin as a way to prevent VTEs, not just treat them after the fact. That approach could change how doctors practice.

In the study, half the cancer patients were randomly assigned to receive the new drug in addition to their chemotherapy, and the other half got a placebo during their normal treatments.

Twenty of 1,608 patients who received the blood thinning drug had VTE events (1.2 percent), while 55 of 1,604 patients in the placebo group developed clots (3.4 percent).

"These data support a shift in our practice toward actively preventing this disease rather than waiting for symptoms," George said.

George said one concern about adding anti-coagulant drugs to current cancer treatments is that patients could develop serious bleeding problems. Patients in the trial, however, did not have higher rates of those complications.

"The safety profile is reassuring," George said.

George serves as a consultant for and receives honoraria from Sanofi.

Provided by Duke University