

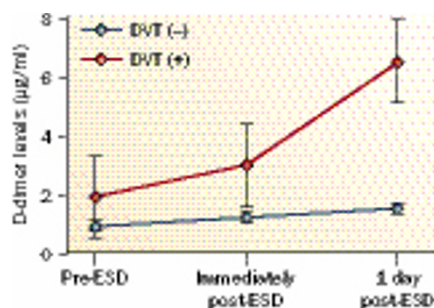
## ENDOSCOPY

## ESD is associated with a moderate risk of deep vein thrombosis that may be determined by D-dimer levels

Patients undergoing endoscopic submucosal dissection (ESD) have a moderate risk of developing deep vein thrombosis (DVT) that may be determined by measuring D-dimer levels 1 day after ESD has been performed.

“Patients undergoing ESD are often in the same position for a prolonged period of time and therefore could be at risk of developing pulmonary thromboembolism (PTE) and DVT,” explains Kazumasa Miyake, corresponding author. Miyake and colleagues not only wanted to confirm whether there was an increased risk of DVT associated with ESD, but also whether any factors could be associated with it.

The researchers from Nippon Medical School, Tokyo, conducted a prospective cohort study in 60 Japanese patients (aged 20–90 years) who were undergoing ESD to treat superficial gastric neoplasms. Levels of D-dimer—a marker of endogenous



Courtesy of K. Miyake

fibrinolysis detectable in patients with DVT—were measured at three time points (immediately before, immediately after and 1 day after ESD). Ultrasonography was also performed pre-ESD and 1 day after ESD to confirm DVT development.

The incidence of DVT detected by ultrasonography after ESD was 10%. At all three time points, D-dimer levels were significantly higher in patients who developed DVT compared with those

who did not, but the difference was greatest 1 day after ESD. The optimal D-dimer level for diagnostic accuracy at this time point was 1.9 µg/ml (sensitivity 83.33%; specificity 79.36%). Univariate analysis found that high D-dimer levels at 1 day after ESD and the presence of comorbidities were significantly associated with DVT, but other factors including sex, age and operative time were not.

“Large-scale studies are now necessary to estimate PTE and DVT incidence after ESD ... and to determine appropriate thromboprophylaxis recommendations for patients undergoing ESD procedures,” concludes Miyake.

Katherine Smith

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