

中文題目：以外科減壓合併導管介入手術成功治療嚴重下肢深層靜脈栓塞併發急性腔室症候群

英文題目：A case of severe deep venous thrombosis complicated with acute compartment syndrome treated by surgical decompression and endovascular intervention

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Introduction

Venous thromboembolism (VTE) is estimated to cause at least 3 million deaths a year worldwide and also cause lots of morbidities such as post-thrombotic syndrome (PTS), venous ulcer, and chronic thromboembolic pulmonary hypertension. Most deep vein thrombosis (DVTs) are confined to the thigh or the lower leg and are not the candidates for endovascular therapy (EVT). However, acute iliofemoral DVTs have a more severe spectrum of presentations and PTS is more common in this population. Phlegmasia Cerulea Dolens (PCD) is an uncommon severe form of DVT which results from extensive thrombotic occlusion of the major and the collateral veins of an extremity. It is characterized by sudden severe pain, swelling, cyanosis and edema of the affected limb. Early EVT to remove iliofemoral thrombus and correct underlying anatomical abnormalities with stent implantation may help improve long-term outcomes. Although EVT for acute iliofemoral DVT was reported in the literature¹⁻⁴, however, there was rare case reporting about PCD complicated with acute compartment syndrome treated by surgical decompression and EVT.

Case Presentation

Herein we reported an elderly man suffering from left leg swelling and was brought to emergency department for first aid. Initially acute peripheral artery occlusive disease was suspected due to left extremity with coldness and cyanotic change (**Figure 1**). However, computed tomography showed severe DVT involving inferior vena cava, left common iliac vein, common femoral vein, superficial and deep femoral veins. Emergent fasciotomy was performed for acute compartment syndrome by surgeons (**Figure 2A**). Later cardiovascular division was consulted for further EVT for left leg DVT. We performed catheter-directed thrombolysis with urokinase for several days and further percutaneous transluminal angioplasty in combination with left common iliac vein stenting was done to regain adequate venous blood flow to inferior vena cava (**Figure 2C and 2D**). After the cooperation of surgical decompression and EVT, the patient's left leg became warm and gradually relief of

swelling (**Figure 2B**).

Conclusion

In conclusion, there is high risk of amputation and even mortality for severe DVT complicated with acute compartment syndrome. Our case reminds physicians that combination of surgical decompression and EVT might be a good treatment strategy for these high risk patients.

Figure 1: Left leg severe DVT complicated with acute compartment syndrome



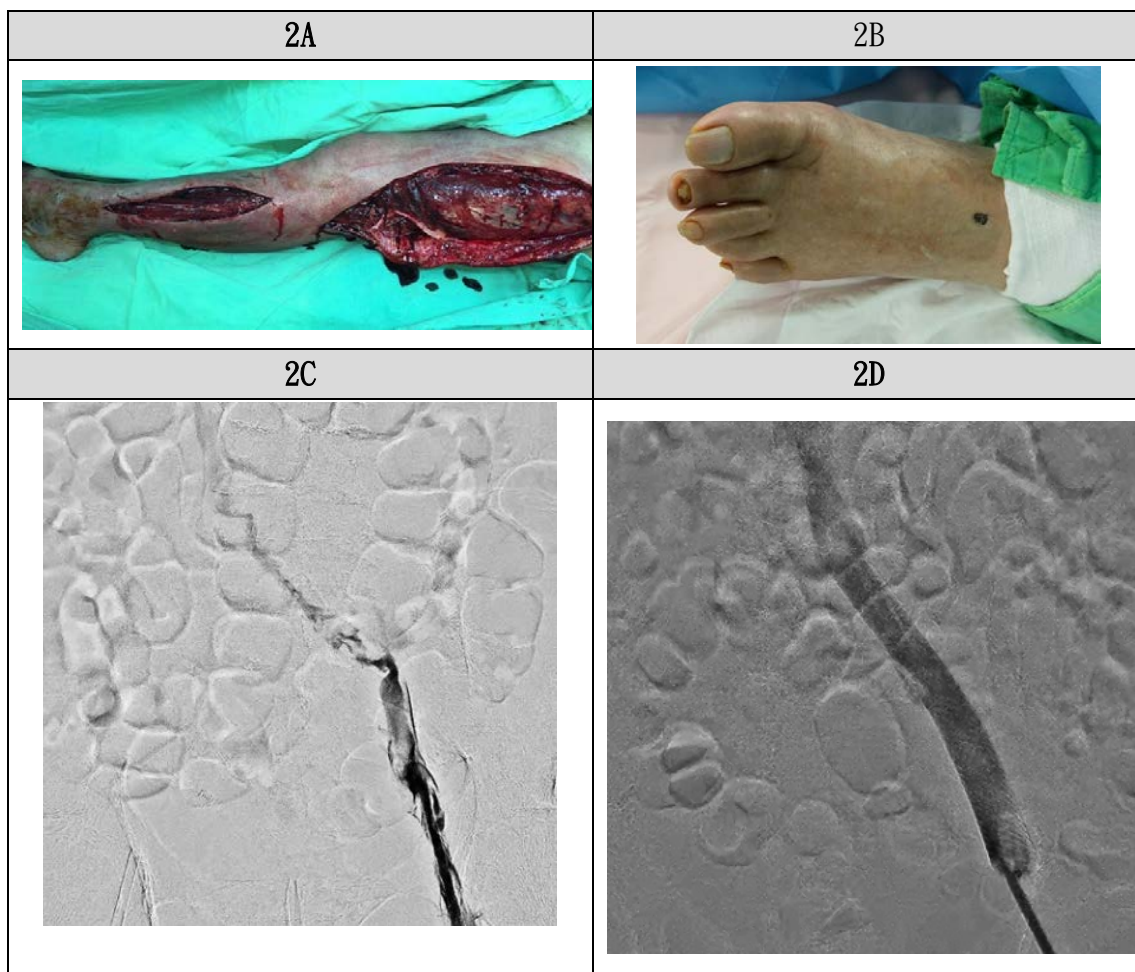
Figure 2A, 2B, 2C, 2D

Figure 2A: Emergent fasciotomy was performed for acute compartment syndrome by surgeons

Figure 2B: After the cooperation of surgical decompression and EVT, the patient's left leg became warm and gradually relief of swelling

Figure 2C: Left leg venography before EVT

Figure 2D: Left leg venography post EVT



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