Introduction & Objectives: Benign prostatic hyperplasia is the most common urological condition affecting the quality of life in men. Its incidence increases proportionally with age and typically manifests with mixed lower urinary tract symptoms. Giant prostatic hyperplasia (GPH), the most extreme form of BPH, can present with more serious clinical consequences and presents a challenge to surgical management. We present the first reported case of provoked deep vein thrombosis (DVT) and near-fatal pulmonary embolus (PE) from a symptomatic megaprostate exerting pelvic mass effect on the external iliac vein (EIV) and highlight the perfect situation supporting the use of minimally invasive prostate artery embolization (PAE) for successful treatment of symptomatic GPH.

Materials & Methods: An 84-year-old fit and well male farmer presented to the emergency department in distress with acute urinary clot retention. A 3-way indwelling catheter was inserted to relieve the obstruction and the patient was admitted for continuous bladder irrigation (CBI) and post-obstructive diuresis. Two days into his admission he became syncopal and was subsequently diagnosed with extensive bilateral, non-occlusive pulmonary emboli (PE). Heparin infusion and catheter-directed thrombolysis resulted in complete resolution of the PE but potentiated intractable haematuria. The consensus from a multidisciplinary discussion that PAE was the only viable treatment option to treat the intractable haematuria given the high general anesthetic as well as the morbidity and mortality associated with open simple prostatectomy in the setting of therapeutic anticoagulation. Transarterial particle embolization of the prostate was performed via left conventional radial access.

Results: There was complete resolution of macrohaematuria within 24-hours of embolization and a successful trial-of-void was performed at the first attempt 14-days post-procedure. His clinical scores also conveyed significant functional improvement. Prior to the PAE, his IPSS was 15, QOL 5, and SHIM 17. One month post-PAE, he reported IPSS 2 (residual nocturia), QOL 0, and a post-void residual volume of 8mL on renal tract ultrasound.

Conclusions: This case highlights the success of prostate artery embolization and catheter-directed thrombolysis to treat potential sequelae of giant prostate hyperplasia. Although simple open prostatectomy remains first-line treatment in many centers for symptomatic GPH, PAE is minimally invasive and often a safer alternative for immediate and long-term symptomatic control in suboptimal surgical candidates.