

Post-Traumatic Pudendal Bleeding: Beyond the Satisfaction of Search

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Vascular injury is a common (up to 40%) finding in patients with pelvic trauma [1] and is frequently associated with multiple vessel involvement [2]. Endovascular embolization is usually the treatment of choice [3]; but, in patients with low hemoglobin levels, the vasoconstriction can obscure possible sources of bleeding by increasing procedural time or requiring re-treatments [4]. Apparent concordance between computed tomography (CT) and angiographic findings is a potential risk factor for preventing the interventional radiologist from performing a complete angiographic examination, such as selective cannulation and/or pressure injection, of the affected vascular district.

We report about a 46-year-old man with pelvic trauma following a motorcycle accident. The patient presented with signs of hemodynamic instability, low hemoglobin levels (5.7 g/dl) and clear evidence of left pudendal artery bleeding at the CT examination performed after admission to the emergency department (Figure 1a–c).

Right common femoral artery access was performed using a 5-French vascular sheath placement. Selective and super-selective catheterization of the left hypogastric and pudendal arteries was performed, respectively (Figure 1d,e). Angiographic findings were in accordance with those reported in the previous CT, but evaluation of the contralateral pudendal artery demonstrated massive bleeding (Figure 1f,g), probably covered up by vasoconstriction, spasm or cross-circulation via anastomosis

of the bilateral pudendal arteries, and immediately controlled with a combination of coils and sponge particle embolization (Figure 1h–k).

In conclusion, bilateral selective angiographic examination using a power injector should be performed in pelvic post-traumatic vascular injuries in order to reduce the lack of identification and treatment of vascular injuries.

Ethics Statement

- (1) All the authors mentioned in the manuscript have agreed to authorship, read and approved the manuscript, and given consent for submission and subsequent publication of the manuscript.
- (2) The authors declare that they have read and abided by the JEVTM statement of ethical standards including rules of informed consent and ethical committee approval as stated in the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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Author Contributions

AC was responsible for writing and reviewing; ARS and EP were responsible for images and clinical data research; and RM was responsible for reviewing and supervising.

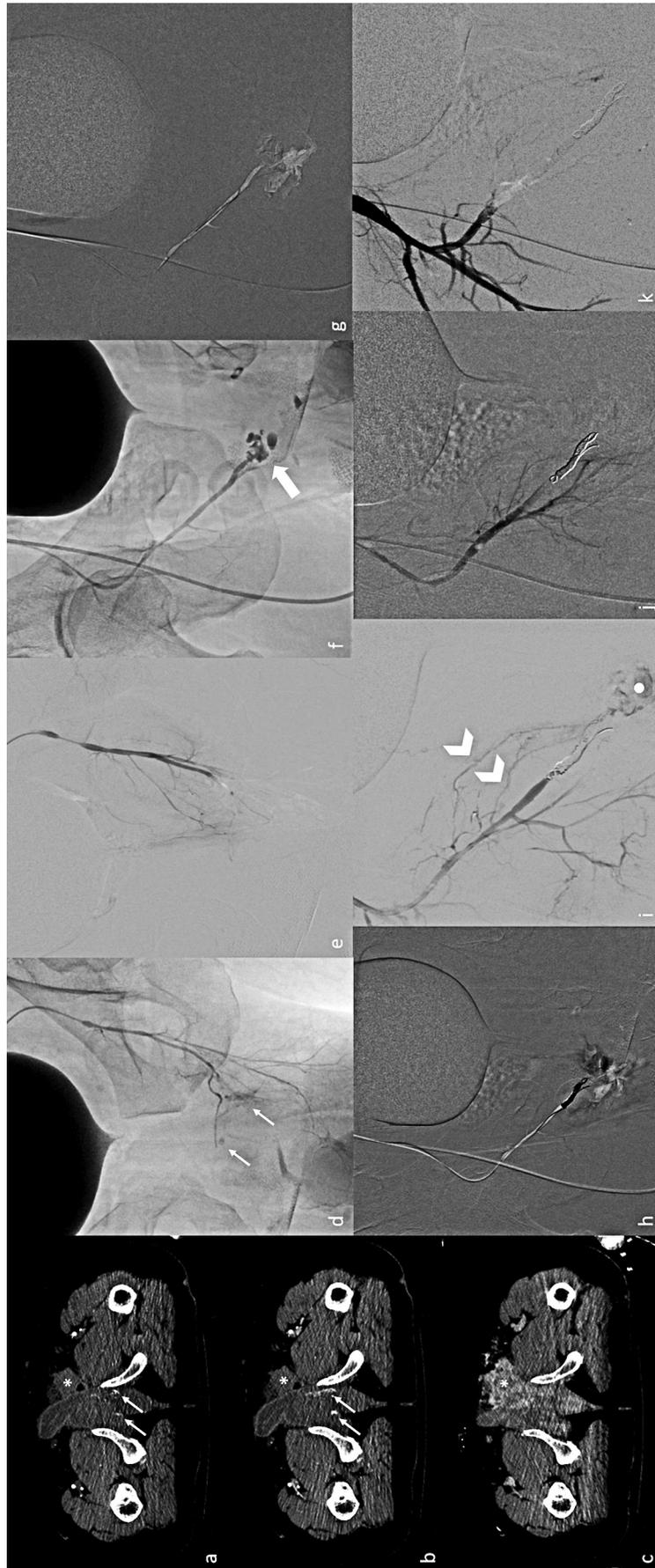


Figure 1 Motorcycle accident in a 46-year-old man with pelvic trauma. (a–c) CT axial images show an important left hematocoele (asterisk) supplied by two small spots of active bleeding (thin arrows) which increase during the post-contrast venous (b) and late (c) phases. (d) Left pudendal artery angiography confirms the presence of the small vascular lesions which are effectively controlled by absorbable particle embolization (e). Contralateral angiography (f) reveals a massive bleeding (thick arrows) due to an important vascular injury of the main trunk of the right pudendal artery which is managed with selective catheterization (g) and embolization (h) with 5 mm and 6 mm coils. Angiographic run after coil deployment (i) shows persistent bleeding (dot) from small collateral vessels (arrowheads) which is successfully managed (j,k) with absorbable particle embolization.

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