Profound hypotension following angioplasty of known case of Leriche syndrome

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Case presentation:
A 48-year old woman with history of hypertension and smoking was admitted in our center with complaint of cramping and pain of both legs and buttocks from 6 months ago (Fontaine class 1Iib). Physical examination was unremarkable except loss of bilateral pulses of both lower limbs. She was candidate for peripheral angiography which revealed aortoiliac occlusive disease (Leriche syndrome). (Fig: A) After establishment of left brachial and bilateral femoral arteries accesses, wiring was done; and stenting of aorta, right and left common iliac arteries were accomplished. (Fig: B) At the final injection after stenting, extravasation was seen in right common iliac artery (Fig: C) which was sealed via stenting (Fig: D).

The patient was sent in good condition to CCU; however, after 2 hours, she reported nausea and weakness and became hypotensive (SBP=70 mmHg). She was immediately referred to cath-lab and peripheral angiography showed significant extravasation in right common iliac artery(Fig: E); As a challenging condition, balloon inflation and stent angioplasty was decided to be performed in the extravasation site. The final injection showed patent right common iliac artery with no evidence of extravasation (Fig: F) and the patient was discharged in stable condition.

Arterial rupture after trans-luminal angioplasty is a life-threatening condition, which can be a catastrophic event in the setting of delayed diagnosis. Sharp and incessant pain may be revealing of arterial rupture. Contrast medium extravasation is indicative of arterial rupture. Guide wire perforation, the use of an oversize balloon, the use of a cutting balloon, recanalization of heavily calcified stenosis, history of endarterectomy and steroid therapy are the probable explanations. Clinical management should include re-inflating the balloon across or proximal to the lesion site to briefly halt the leakage. Ultimate control of permanent hemorrhage is stent-graft placement or surgical repair.

In conclusion, we present here a case of right common rupture after stent deployment which was successfully managed with stenting and short-term balloon inflation.