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[Target Lesion] Supra-mesenteric artery (SMA).

[Case] 73-year-old female.

[Chief Complaint] postprandial abdominal pain and weight loss.

[Past History] acute myocardial infarction at the age of 60. She underwent several PCIs and EVTs. in other hospitals.

[Present Illness] She had suffered from postprandial abdominal pain for more than 6 months. She had lost approximately 20 kg in 6 months due to a loss of appetite. She had visited several hospitals and underwent a Laparoscopic cholecystectomy. But her abdominal pain had continued. Then, based on the CT findings (severe calcification in the aorta and mesenteric arteries), her medical history, and her clinical symptoms, abdominal angina became a differential diagnosis.

[Strategy] Although a multidisciplinary consensus diagnosis is crucial for this disease, it is hard to make a definite diagnosis before revascularization of mesenteric arteries. We planned to do a diagnostic abdominal angiogram first, and to confirm the actual degree of narrowing in the celiac artery (CA) and the ostium of the SMA. Then, we decided whether to move to endovascular treatment.

[Procedure] A 7Fr GuideSheath slender (Terumo) was inserted into the left radial artery. A ParentPlus 4.5Fr guide catheter 115cm (Medikit) with a 4.2 Fr JR 4.0 diagnostic catheter was engaged to the CA. We observed IVUS and realized the degree of narrowing was not so tight. Then, we engaged the SMA and advanced a 0.014 guide wire (Vassallo NS3, Cordis) to the distal SMA. We dilated the SMA ostium with a 3.0 mm balloon, and then IVUS observation was performed, which revealed severe calcified, tight narrowing at the ostium, the distal of which was diffusely diseased. We added a 4mm balloon dilatation and delivered an Express stent, 5/15mm (Boston Scientific) in the proximal part of the SMA. We dilated the stent and ostium of SMA again with a 5mm balloon. Then, we attempted to deliver another Express stent, 6/14mm, to cover the ostium, overlapping the previous stent. We changed the guide wire to the support one. After several attempts, the second stent was successfully delivered and implanted. The following IVUS observation showed the stent was well expanded without stent distal edge dissection. The final angiogram showed excellent antegrade blood flow with well-opacified intestine.

[Subsequent clinical event] A few hours after the procedure, she complained of severe abdominal pain. A CT showed a massive intramural hematoma (6*5 cm) in the antrum of the stomach, and extravasation in the hematoma was observed. The emergent angiogram did not show obvious bleeding. Gastroscopy also revealed a massive tumor in the atrium with a smooth surface, compatible with intramural hematoma. We chose a conservative treatment, and this intramural hematoma gradually disappeared without any sequela. After that, the abdominal pain completely went away, and her appetite dramatically improved.

[Final Result] We successfully treated the patient with the so-called abdominal angina with stent implantation to the very calcified SMA, despite the complication of massive intramural hematoma in the atrium of the stomach.