

PCI in a patient with gastrointestinal bleeding and requiring urgent surgery

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79 yr man

- No risk factors for coronary artery disease
- Was admitted to the emergency department of severe dyspnea and anemia
 - Hemoglobin 47 g/l
 - Hematocrit 0.19
 - Troponin-T 134 ng/l
- No bleeding shock
- Gastroscopy was normal
- Colonoscopy: colon carcinoma that should be operated within weeks
- 3 units of transfusion was given
- Cardiological consultation



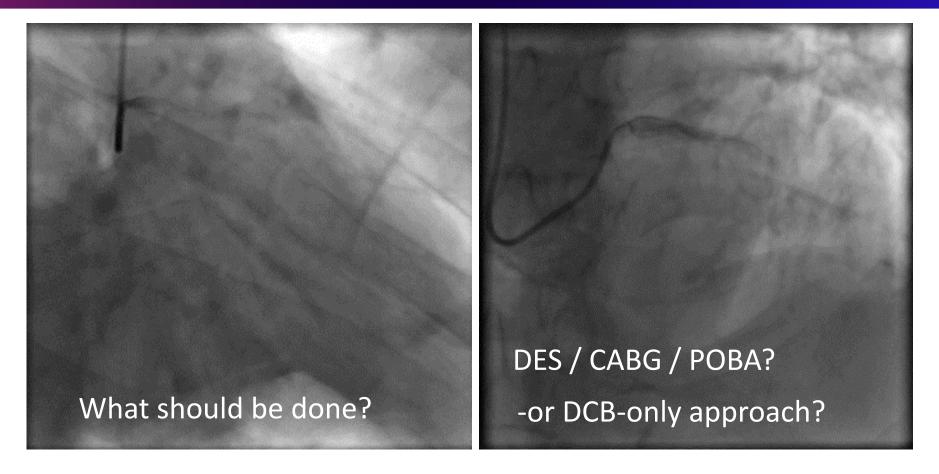
79 yr man: echocardiography



Ejection fraction of 40% with severe hypokinesia of the anterior wall



79 yr man: coronary angiogram



Medina 1:1:0 stenosis of the left anterior descending artery Colon carcinoma cannot be operated without revascularization



Predilatation of lesion in the left anterior descending artery

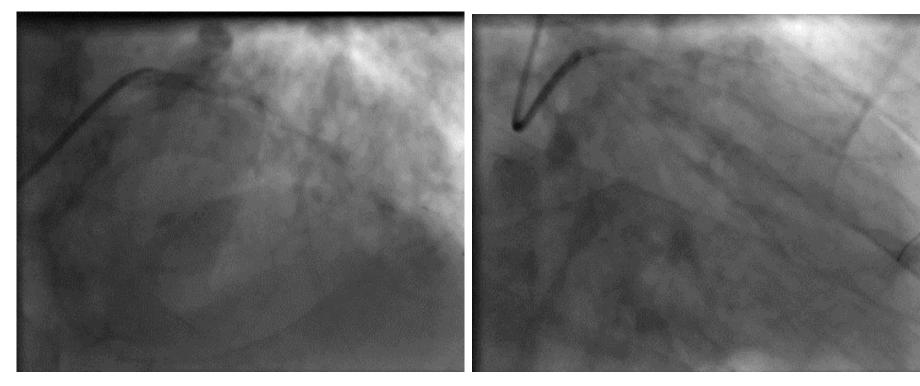


ASA 250 mg and enoxaparin 30mg iv was given **No clopidogrel, prasugrel and ticagrelor was given**

Predilation of the lesion was done using 3.0x20mm NC-balloon



After predilatation

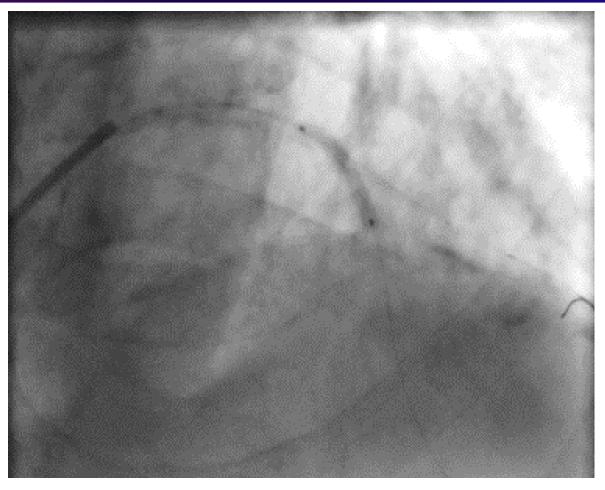


Type C dissection
No chest pain
No ECG changes
TIMI3 flow with <30% recoil

Suitable for DCB-only PCI according to the International consensus group guideline¹



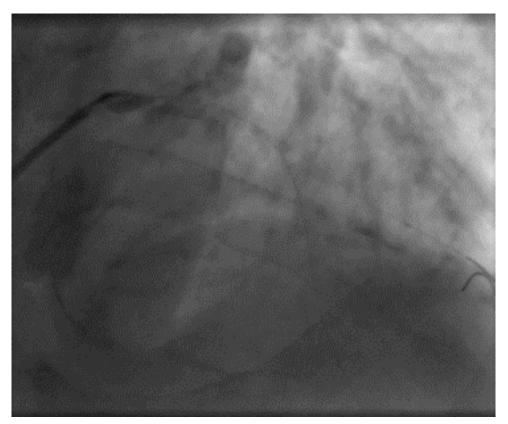
Drug-coated balloon-only approach

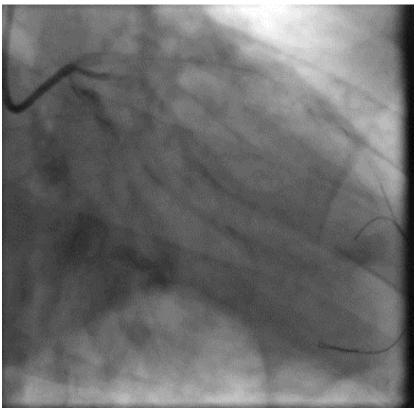


3.0 x 20 mm paclitaxel-DCB with iopromide excipient was applied for 60 sec



Final result





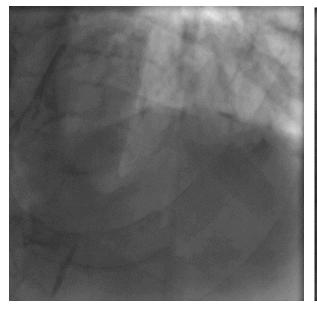
ASA 100mgx1 and enoxaparin 40mgx1 s.c. was continued until surgery

No stenting due to extreme bleeding risk = recent bleeding + colon CA and urgent surgery

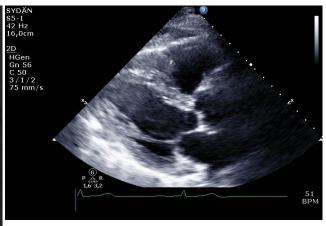


Follow-up

- Poor compliance to medication: the patient stopped using ASA!
 - Luckily no DES was implanted -> almost certain stent thrombosis would have happened
- Successful hemicolectomy 2 weeks after PCI without complication
- Control angiography 4 months later showed good result with positive remodeling and also anterior wall function was normalized
- No recurrent angina for 5 years now









Conclusions

- Patients suffering from severe myocardial ischemia and recent bleeding / extreme bleeding risk / going to urgent non-cardiac surgery are difficult to be managed
- DCB-only strategy is a novel option in these patients¹
 - Single antiplatelet in extreme bleeding risk can be used
 - In case of severe bleeding all antithrombotics can be temporarily stopped which is not possible after stenting within the first 4 weeks
 - Safe for non-compliant patients
- Acute vessel occlusion risk is very low
 - approx. 0.2% in large registry studies
 - 0% in two RCTs testing DCB in de *novo* lesions^{1,2}
- Positive remodeling occurs after DCB-only PCI