Early stent thrombosis: A complication that we thought had disappeared.

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Summary: A 45 years old women without any cardiovascular risk factors admitted to our Cath lab for probable stent thrombosis, Angiography confirmed stent thrombosis with large intra stent thrombus, Intravascular ultrasound showed severe stent malapposition with an undersized stent and geographic missing of a proximal lipid rich plaque. Treatment consisted of overexpansion of the stent with serial NC balloon Inflations and addition of a stent proximal to the previously implanted one.

Case presentation: A 45-years-old women without any cardiovascular risk factors was referred to our Cath lab for probable stent thrombosis 5 days after initial angioplasty for an inferior ST elevation myocardial infarction (STEMI) with a 2.5×18mm Rapamycin Eluting stent with biodegradable polymer in mid right coronary artery. patient was then discharged with apparently good angiographic result and was prescribed clopidogrel+ aspirin double antiplatelet therapy (DAPT) (patient couldn’t afford a potent P2Y12 (Ticagrelor or Prasugrel) due to its cost and lack of medical insurance) , high dose of atorvastatin (80mg o.d) and 5mg of ramipril o.d.

Coronary Angiography confirmed stent thrombosis with large intra stent thrombus (Panel A and B), Intravascular ultrasound (IVUS) showed severe stent malapposition with an undersized stent and geographic missing of a proximal lipid rich plaque (Panel C, D and E).

Treatment consisted of overexpansion of the stent with a 4.0x12mm non-compliant balloon (NCB) and addition of a 3.5×18 mm drug eluting stent (DES) proximal to the previously implanted one (Panel F and G) to achieve good angiographic result (Panel H) and good apposition of the stent on IVUS (Panel I). Patient was discharged 2 days after and was prescribed Ticagrelor+ Aspirin.
**Legend**:

Figure 1: Right coronary angiography showing total acute occlusion of the mid coronary artery at the stent implantation site (stent thrombosis): Wight Asterix (Panel A) with a large intra stent thrombus: Black Asterix (Panel B). Intravascular ultrasound (IVUS) showing severe stent malapposition: red arrows point to locations of malapposition with a maximal malapposition length of 7 mm and clearly an undersized stent (green arrows point to stent struts) (Panel C). Chroma flow IVUS showing blood behind struts (Wight arrows) (Panel D). IVUS showing Proximal lipidic rich plaque missed in the first angioplasty: yellow arrows (Panel D). Right coronary angiography showing overexpansion of the thrombosed stent and addition of a proximal stent (Panel F and G). Achievement of a good angiographic result (Panel G) with good apposition of the stent struts (purple arrows point to well apposed struts) (Panel I).

**Supplementary material**

Supplementary material is available at European Heart Journal - Case Reports online.

**Consent**: The authors confirm that written consent for submission and publication of this Image and associated text has been received from the patient in line with the Committee on Publication Ethics (COPE) guidelines.

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Figure 1
160x90 mm (x DPI)