2021 euro PCR

Ostium stent precise positioning with new assistance system

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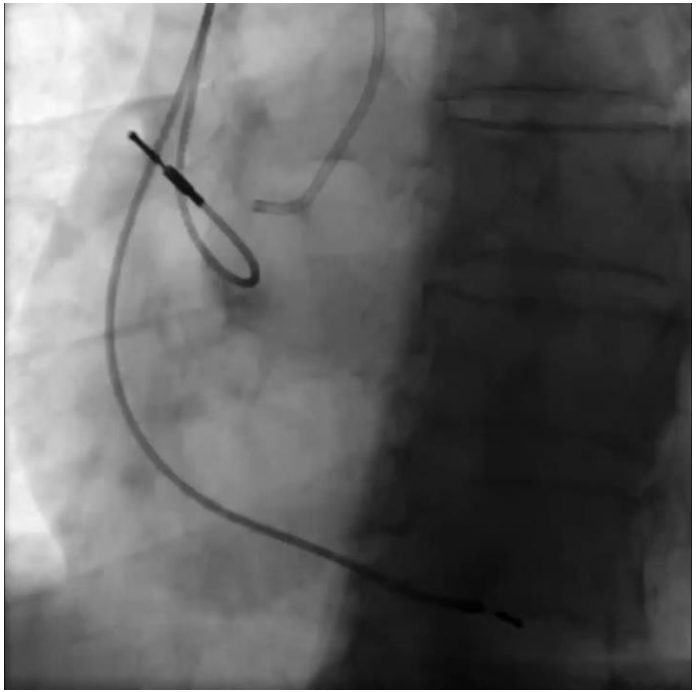
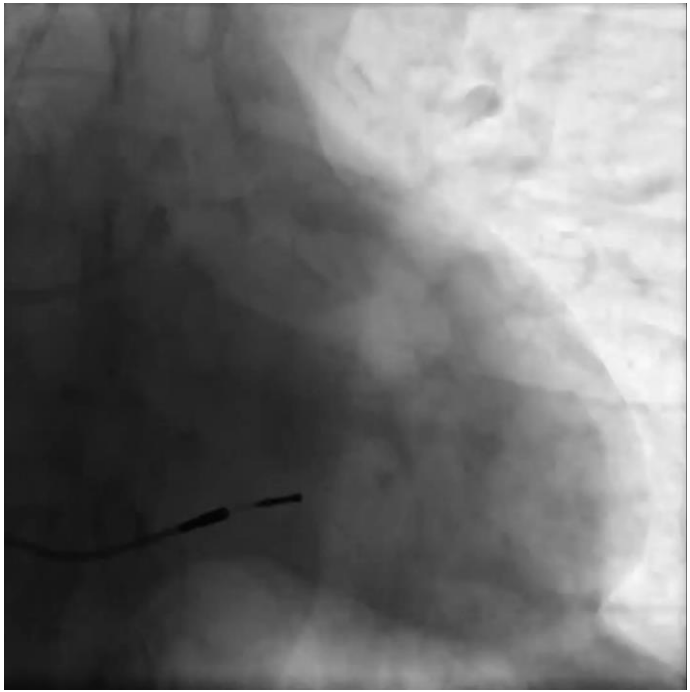
Background

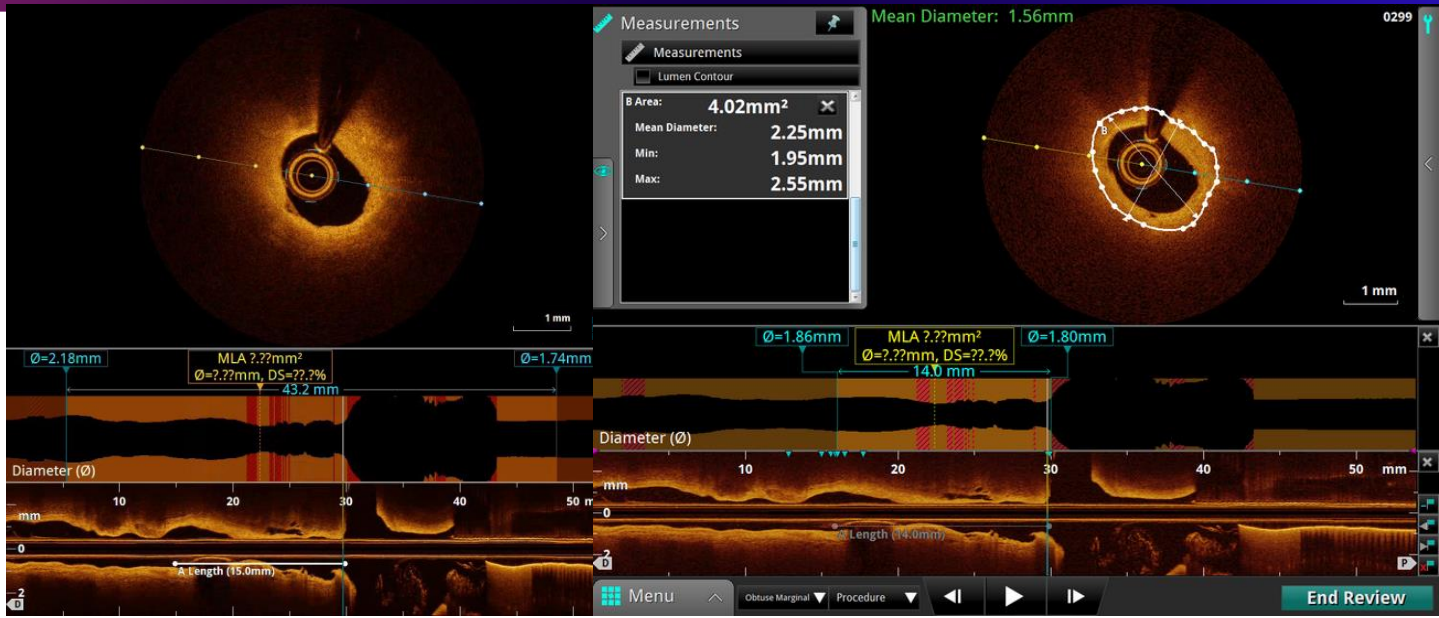
- 66-year-old male
- Exertional dyspnea
- Lateral effort ischemia
- Atrioventricular block Mobitz II, dual chamber pacemaker placement in 03.2019

Coronary Angiogram





Obtuse marginal OCT after pre-dilatation

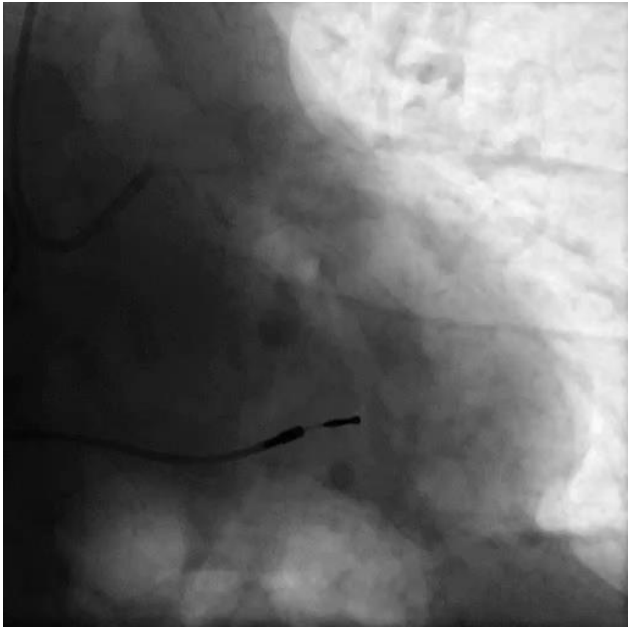


After pre-dilatation, it was shown on OCT that to the distal plaque was 15 mm long. Therefore, it was decided not to select a stent that would extend beyond this plaque since this could cause vessel rupture. A stent length of 14 mm was selected to cover the ostial lesion but not create complications in thin distal part.

Stent positioning

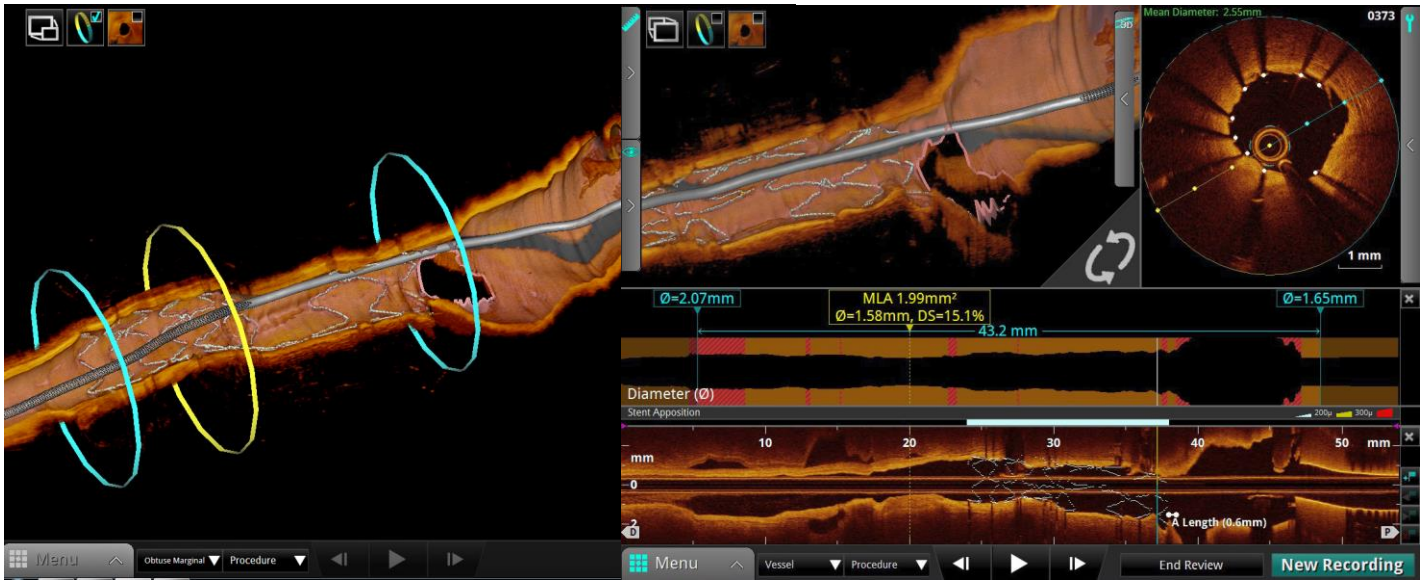
A novel stent positioning assistance system (SPAS) was used for precise stent positioning. In 30 seconds from the time of starting positioning, a 2,75x14 mm DES was placed at the target position.

Angiography after stent implantation



On the angiogram, it was seen that the left circumflex was not compromised after stent implantation in obtuse marginal. Stent positioning very close to the ostium was observed. OCT was performed to re-check the stent position.

OCT after stent implantation



OCT showed perfect stent positioning very close to the ostium (0.6 mm from stent to ostium at the maximum distance axis).

Conclusion

- We were able to put a stent much closer to the ostium with the stent positioning assistance system than using manual hand movement of stent delivery system
- An accurate stent position (error < 1mm) next to the ostium was achieved with the SPAS device and demonstrated on OCT with no protrusion behind the ostium and good plaque coverage.
- Little time was used to install the SPAS device and place ~~a~~ the stent in the correct position