

Successful Treatment Of Acute Coronary Occlusion Accompanied By A Giant Coronary Aneurysm By Implantation Of Multiple Covered Stents

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We do not have a financial interest or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.

Case

Patient: A 32-year-old woman

Complaint: Acute-onset chest pain

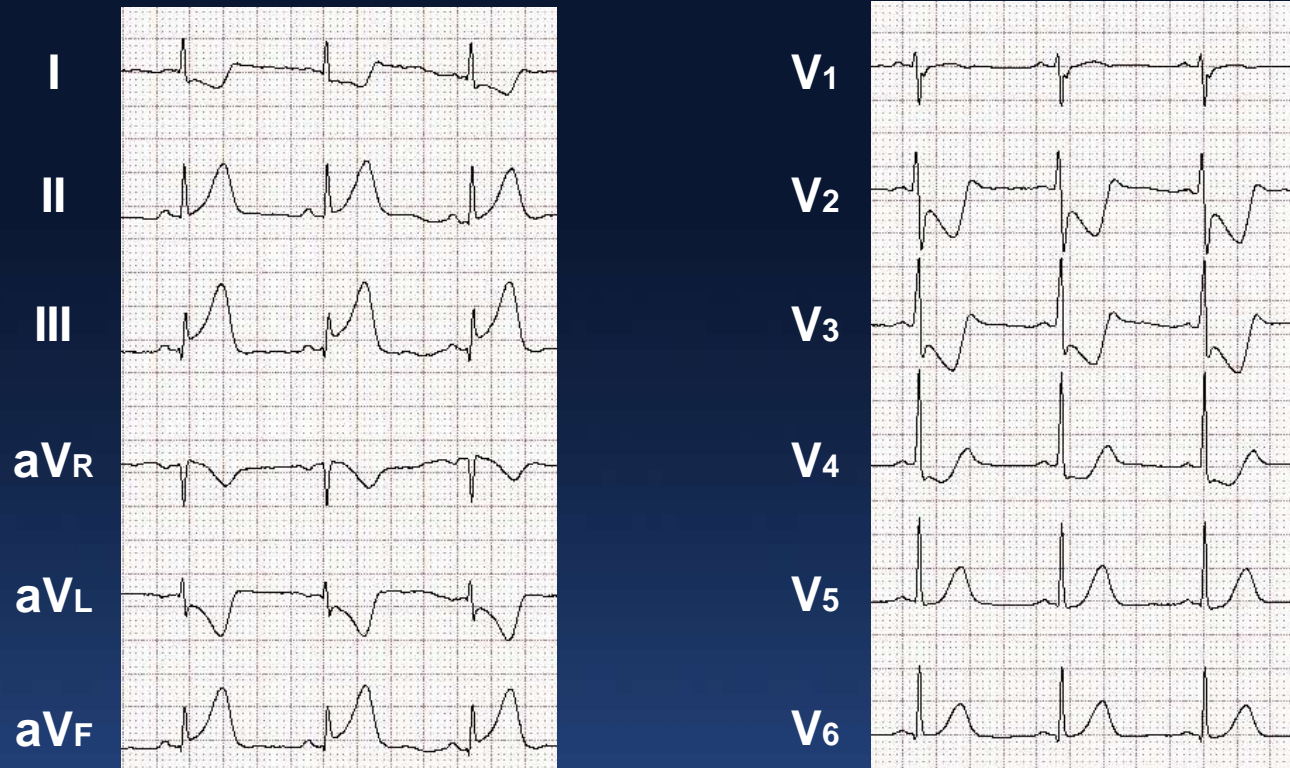
Previous illness: None

Coronary risk factor: None

Chest radiograph



ECG



UCG: LV asynergy of the inferior wall

Baseline angiogram

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The emergent coronary angiography showed coronary occlusion in the proximal RCA. The distal RCA was slightly supplied by the LCA.

PCI to RCA

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Since the primary diagnosis was acute myocardial infarction, we started PCI to the RCA. However, it was quite difficult to pass the guidewire through the lesion.

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PCI to RCA

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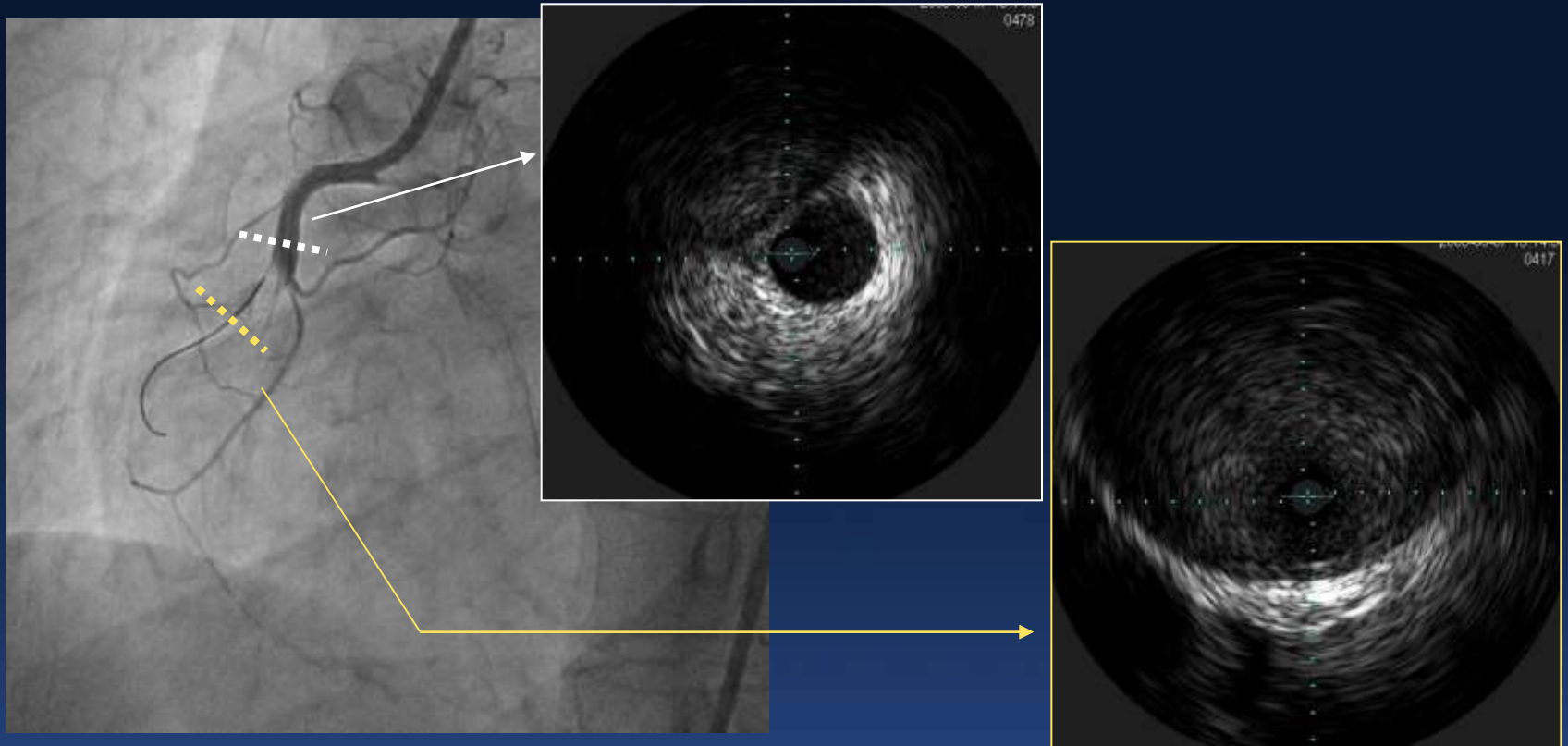
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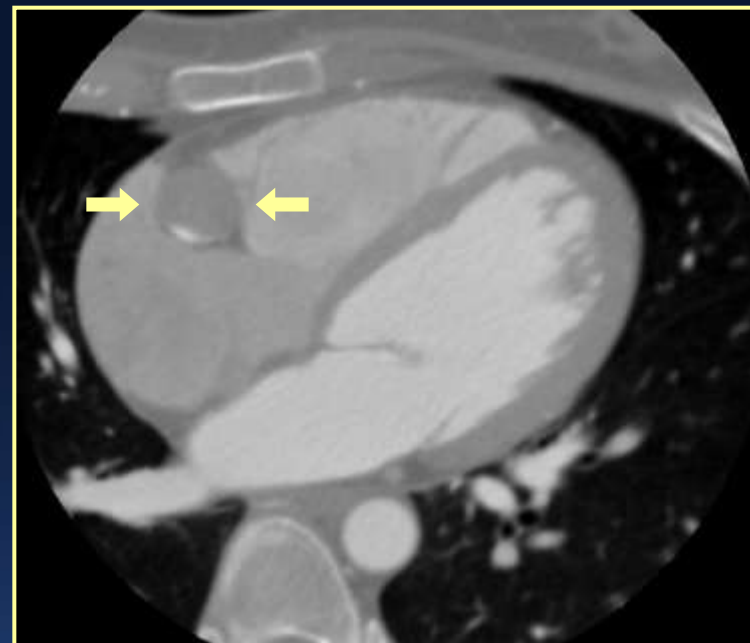
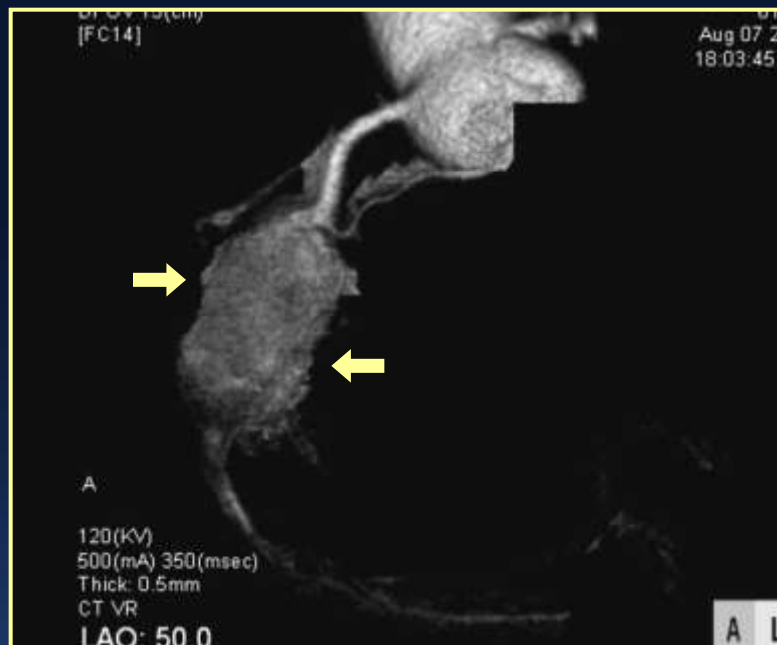
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IVUS image



IVUS image revealed extraordinary dilatation of the vessel.

Coronary CT image



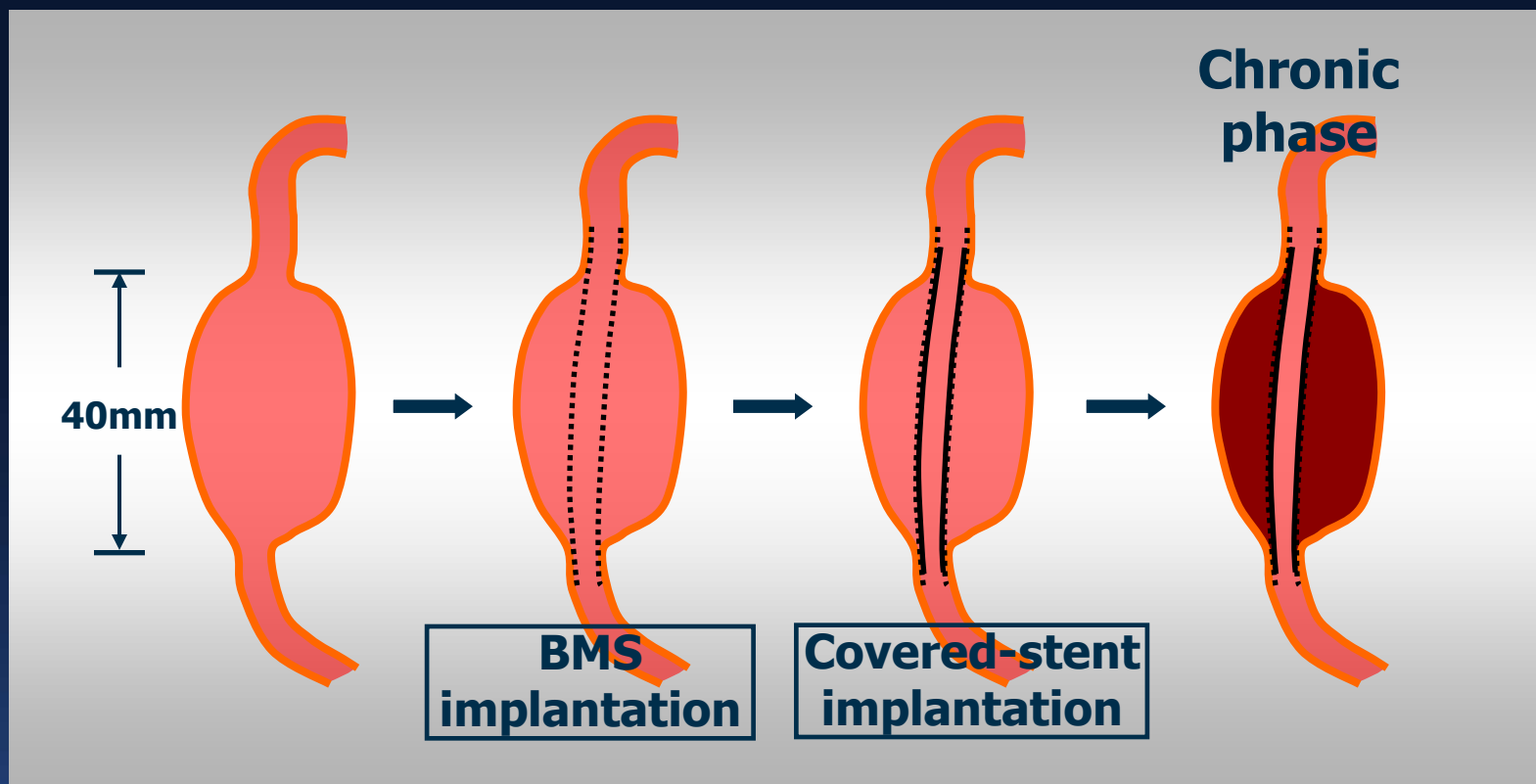
Coronary CT image revealed a giant coronary aneurysm (40 x 20mm) in the mid RCA.

PCI to RCA



**Thereafter, the procedure was resumed.
The guidewire was successfully passed through
the occluded large coronary aneurysm.**

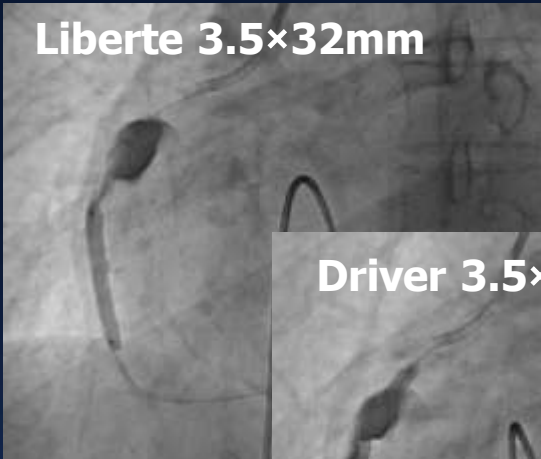
Stenting strategy



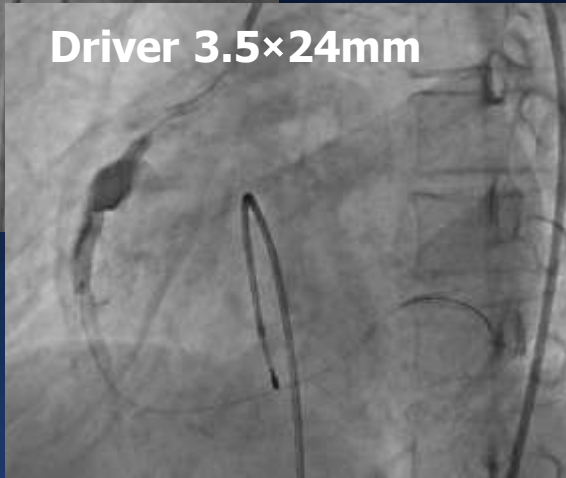
For maintaining good patency of the RCA and preventing endoleak, 3 covered stents were required to connect the proximal edge of the aneurysm to the distal one. To stabilize the multiple covered stents, oversized bare-metal stents (BMS) were implanted in advance as substitutes for the vessel wall.

BMS implantation

Liberte 3.5×32mm



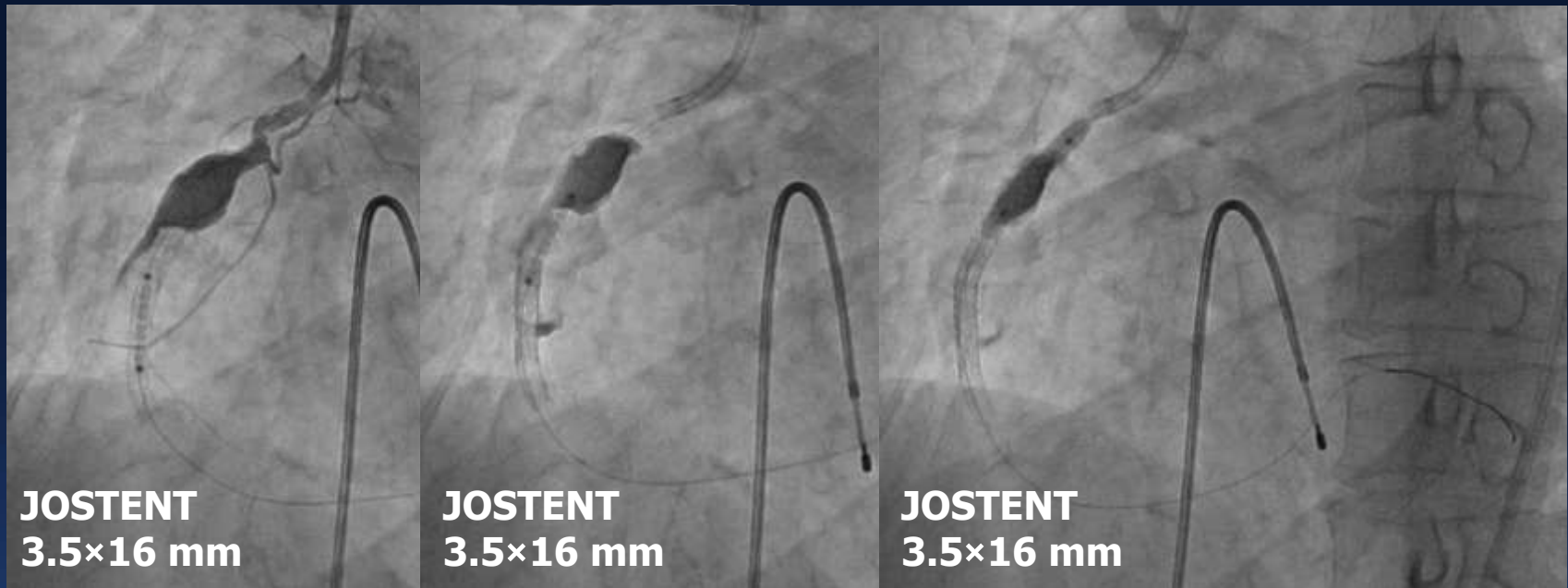
Driver 3.5×24mm



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Two BMSs were implanted in advance as substitutes for the vessel wall. Good patency of the RCA was restored; however endoleak was still observed after BMS implantation.

Covered-stent implantation



Three covered stents were deployed inside the preimplanted BMSs. Optimal stent expansion was achieved after using a high-pressure balloon.

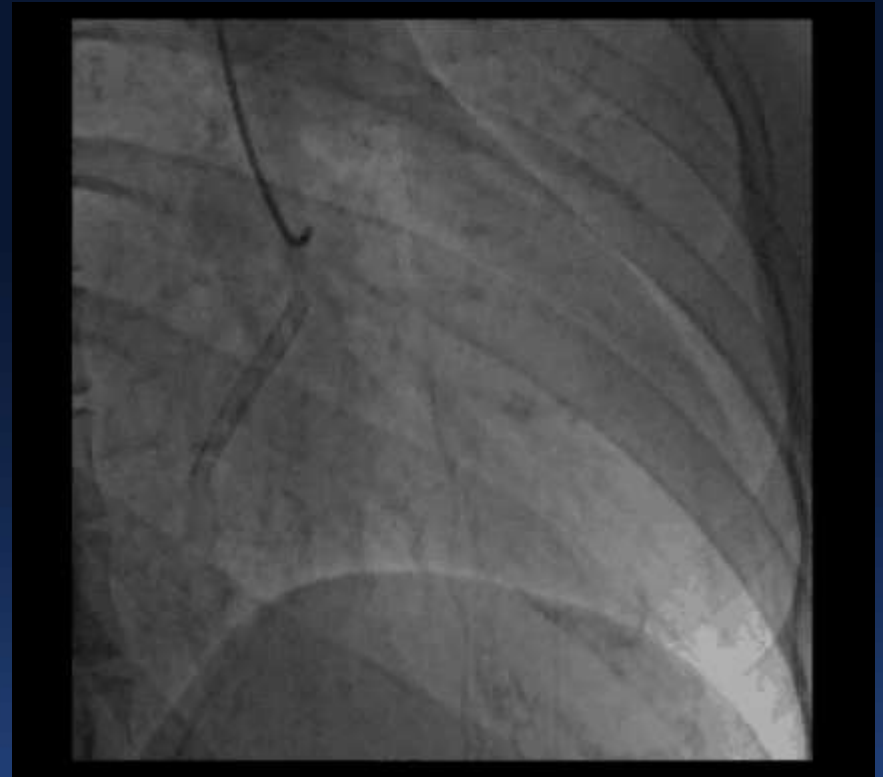
Final angiogram

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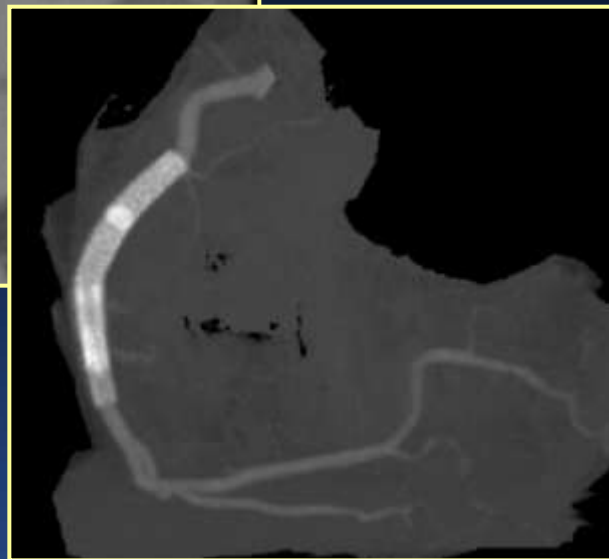
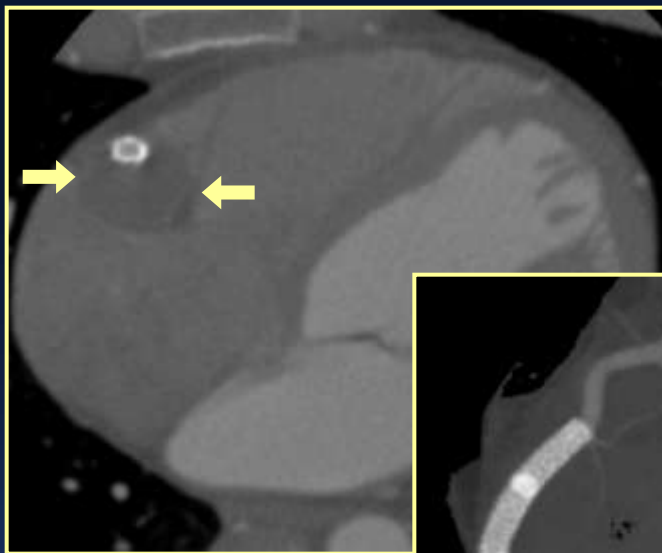
Good patency of the RCA was restored and the endoleak almost disappeared. After the procedure, oral aspirin and clopidogrel was administered.

6-Month follow-up



Coronary angiogram 6 months after the procedure showed good patency of the stent grafts with moderate intimal hyperplasia.

Follow-up CT image



Follow-up CT angiogram showed an organized aneurysm outside the stents.

Conclusion

- **Acute coronary occlusion accompanied by a giant aneurysm was successfully treated by implanting multiple covered stents.**
- **Coronary CT was quite helpful in the diagnosis and treatment of the coronary aneurysm.**
- **Long-term follow-up examination revealed that implantation of multiple covered stents after BMS implantation was useful in maintaining good patency and preventing endoleak.**

Thank you for your kind attention.

