

COMPLEX VASCULAR INTERVENTION CASE STUDY

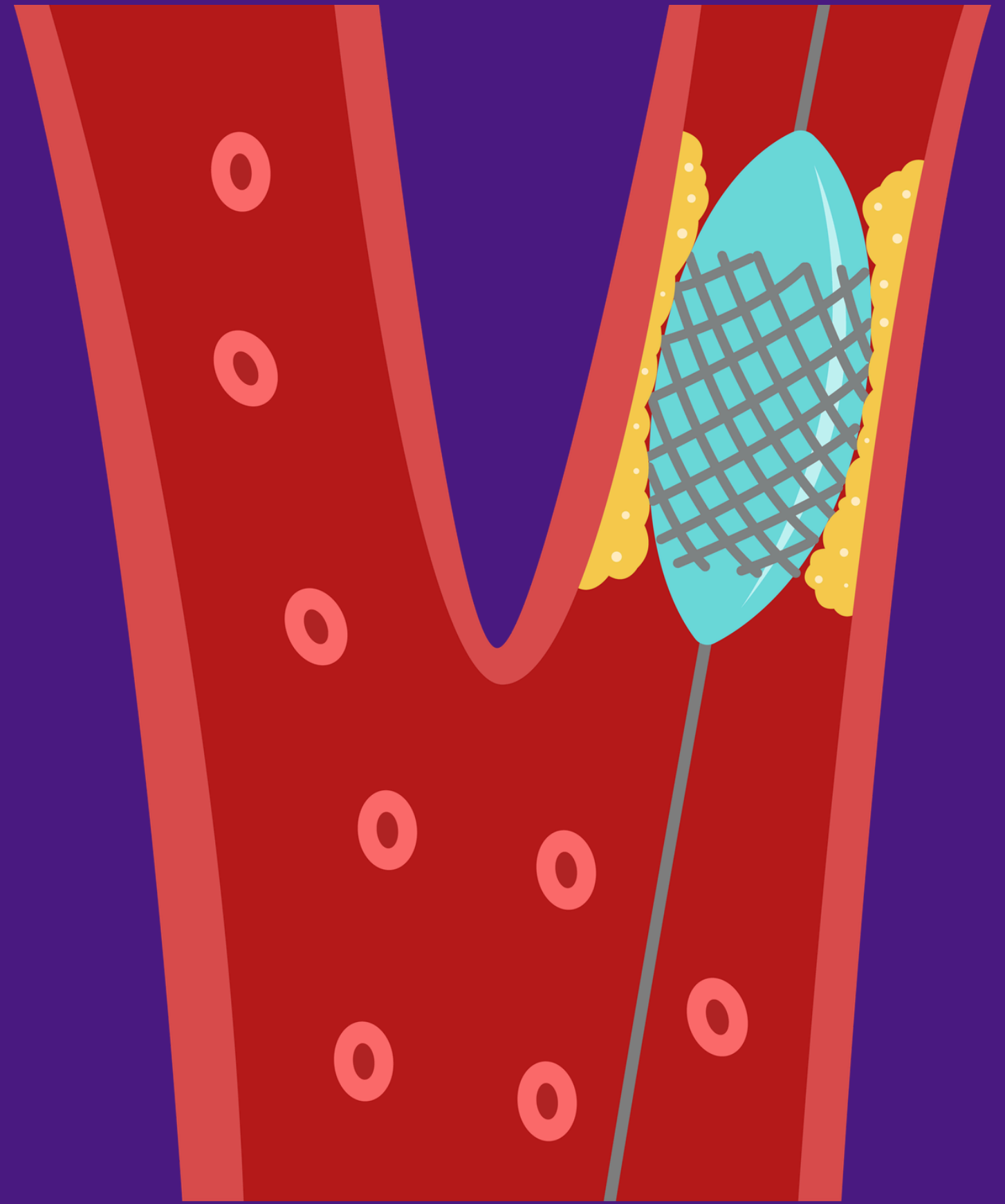
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INTRODUCTION

This case study focuses on the endovascular treatment of coronary fistulas, a condition where abnormal connections divert blood flow from the coronary artery network.

Such conditions can lead to inefficient circulation and increased cardiac stress, requiring precise and minimally invasive intervention strategies.



MEDICAL DEVICE

The [Direct-Stent Stent Graft](#) is an advanced endovascular device designed to treat vascular abnormalities by providing effective vessel sealing and flow restoration. The device combines a flexible stent structure with a graft covering that enables precise deployment and reliable exclusion of abnormal blood flow pathways, such as coronary fistulas. Its design supports strong radial strength, controlled expansion, and optimal adaptability within complex vascular anatomies, ensuring safe and effective clinical performance.



PATIENT DETAILS

The patient 62 year old female presented with a complex vascular condition characterized by abnormal blood flow and challenging vessel anatomy, requiring a minimally invasive endovascular approach.

Due to the risk of complications associated with conventional treatment methods, a stent graft solution was selected to achieve effective vessel sealing and restore normal hemodynamics.

Careful pre-procedural planning and imaging were used to guide device selection and ensure optimal procedural accuracy.





PROCEDURE

The procedure was performed using a minimally invasive endovascular approach under fluoroscopic guidance. Vascular access was obtained, and a guidewire was advanced to the Left Anterior Descending (LAD) artery to navigate the complex vessel anatomy. A 3.5 × 19 mm Direct-Stent Stent Graft was carefully positioned across the affected segment and deployed with precision to ensure accurate placement and optimal vessel coverage. Post-deployment imaging confirmed successful exclusion of the fistulas, proper device expansion, and stable positioning without immediate complications.



Figure 1



Figure 2

Figure 1: Selected coronary angiography shows fistulas on the Left Anterior Descending (LAD) before STENT GRAFT implant

Figure 2: After the procedure, clearly showing the exclusion of the fistulas.

Conclusion

The case demonstrates the effectiveness of stent graft implantation in successfully excluding coronary fistulas and restoring normal vessel flow. The device showed excellent deployment accuracy, adaptability to vessel anatomy, and reliable sealing performance without procedural complications.

At 6-month follow-up, the patient remained clinically stable with no recurrence of abnormal flow, and imaging confirmed sustained vessel patency and proper device positioning.

The implant used in this procedure was the Direct-Stent Stent Graft, developed by InSitu Technologies, highlighting the role of advanced device design in improving outcomes in complex vascular interventions.

**THANK YOU
FOR YOUR
ATTENTION**

