

Coronary accordion effect mimicking coronary dissection

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Abstract

The coronary “accordion” effect is a rare pseudo-complication of percutaneous coronary intervention (PCI). It is usually observed due to straightening and shortening of tortuous vessels with stiff guidewires during PCI. In this case report, we present an interesting case of the coronary accordion effect observed in a 52-year-old woman undergoing PCI.

Key words: accordion effect, coronary intervention.

A 52-year-old female patient underwent coronary angiography (CAG) due to unstable angina pectoris. Her left coronary system was normal and a critical lesion was observed in the mid portion of the highly tortuous right

coronary artery (RCA) (Figure 1). After straightening the RCA with two floppy guidewires and a balloon catheter system (Figure 2), a 2.75 mm × 18 mm sirolimus-eluting stent was implanted in the mid RCA (Figure 3). After stent

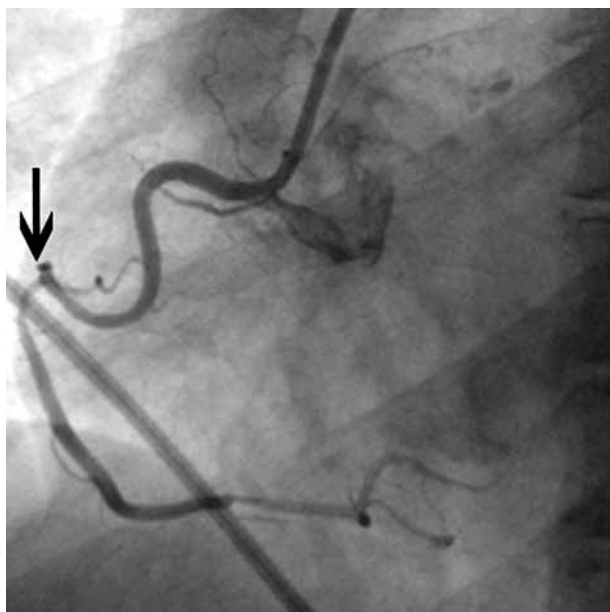


Fig. 1. A critical lesion is seen in the mid portion of the highly tortuous RCA (black arrow)

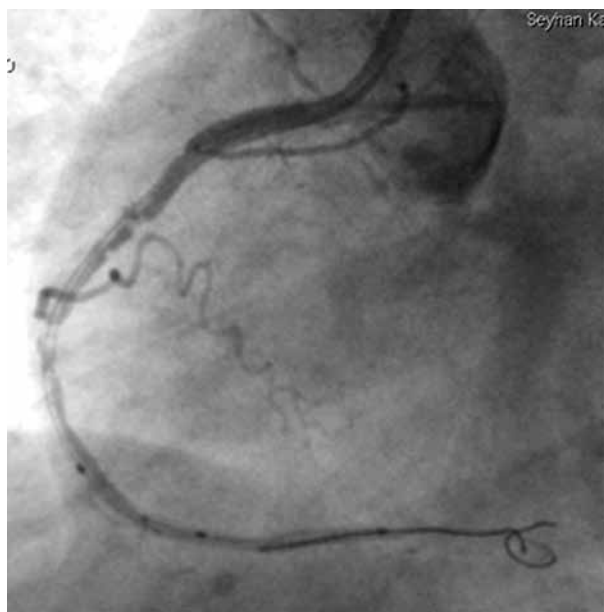


Fig. 2. Vessel is straightened with two floppy guidewires and a balloon delivery system

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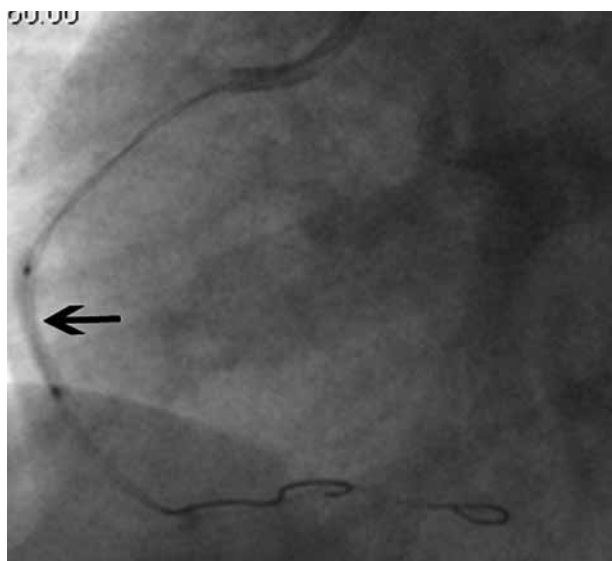


Fig. 3. A 2.75 mm × 18 mm sirolimus-eluting stent is implanted (black arrow)



Fig. 5. All of the wrinkles and kinking disappeared after removal of guidewires

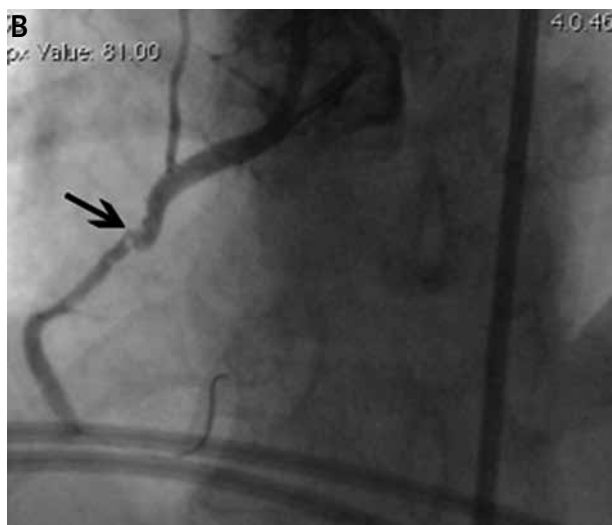
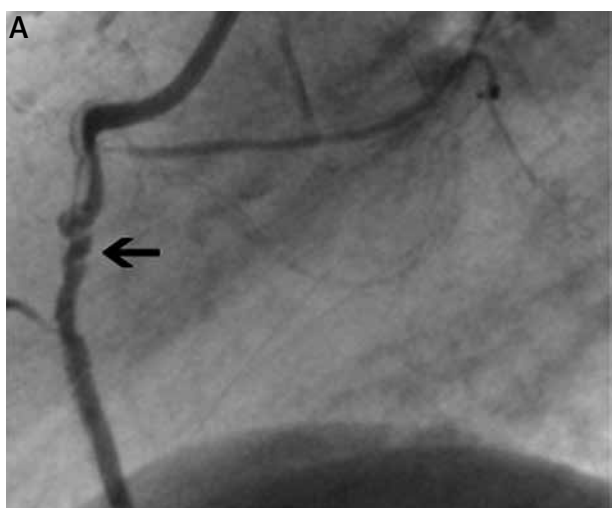


Fig. 4. Extreme kinking and wrinkles mimicking coronary dissection are observed (black arrows)

implantation, CAG revealed haziness, extreme coronary kinking and wrinkles in the proximal portion of the RCA (Figures 4A and B). After extraction of guidewires, all of the kinking, wrinkles and haziness disappeared (Figure 5). The procedure was terminated.

The coronary “accordion” effect is a rare pseudo-complication of percutaneous coronary intervention (PCI) [1]. It is usually observed due to straightening and shortening of tortuous vessels with stiff guidewires during PCI. Mechanical shortening and vessel wall invagination are the suspected mechanisms [2]. It may cause severe ischemia and even myocardial infarction [3, 4]. It is important to differentiate it from dissection and spasm. No specific treatment is needed and it usually resolves spontaneously after extraction of guidewires.

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