

## Differentiation between Coronary Dissection and Hematoma by Intravascular Ultrasound

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In the recent issue of this journal,<sup>1</sup> an interesting case report presented a coronary lesion which dissected after stenting. A second stent was deployed to cause mural hematoma, compromising the upstream. Then a third stent was set there, squeezing the hematoma distally across stents to compromise the downstream.

The authors used intravascular ultrasound (IVUS) to differentiate between dissection and hematoma. The accurate sites of IVUS images were not labeled on the corresponding angiograms. We presume that Figure 2A and Figure 2C were at sites just proximal and distal to the first 2 stents, respectively. The image of Figure 2A was described as intact intima without dissection, and an echolucent space internal to the media was labeled as hematoma. Actually, there is an arc of dissection from 9 o'clock to 2 o'clock, and the echolucent space should be a lesion of the retained contrast media, which was consistent with the proximal dissection shown at angiogram Figure 1D. Usually, the hematoma is external to the media, and its echogenicity is intermediate to dense, in contrast to the retained contrast media caused by dissection, which is internal to the medial layer and rather echolucent.<sup>2-4</sup>

The hematoma shown in Figure 2C was only a narrow crescent with 90 arc long. How could it compromise the flow circumferentially, and so severely as shown in Figure 2B? Furthermore, we would like to know if there was any hematoma on the IVUS image within the first 2 stent-segment, so that it can be deduced that the hematoma was squeezed distally by the third stent.

**Key Words:** Dissection • Hematoma • Intravascular ultrasound

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