

Use of a Pressure Wire during the Spasm Provocation Test for difficult to Diagnose Cases of Vasospastic Angina

Vasospastic angina (VSA) is characterized by transient arrowing of epicardial coronary arteries, causing reduced blood flow to the heart and ultimately leading to adverse cardiac events. The spasm provocation test (SPT) is used to diagnose VSA; however, diagnosis is sometimes challenging. In such cases, intracoronary pressure assessment with a pressure wire is widely used. We performed SPTs with and without a pressure wire in 103 and 87 patients, respectively, and compared the usefulness, safety, and procedure-related parameters between the approaches. The pressure wire was placed in the distal portions of the right coronary artery and left anterior descending coronary artery. The ratio of the distal intracoronary pressure to the aortic pressure (Pd/Pa index) was continuously monitored. The minimal Pd/Pa index in response to varying acetylcholine doses used to induce spasms and during a coronary spasm were recorded. Moreover, the fluoroscopic time, total contrast medium dose, and frequency of severe complications were compared. Our results indicate that using a pressure wire during SPT reduced the total dose of contrast medium and frequency of severe complications and could thus be useful for diagnosing VSA in specific cases.

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