A novel method of transradial approach for left ventricular endomyocardial biopsy

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On behalf: cardiology department of Beijing Hospital

Topic(s): Myocardial Disease – Diagnostic Methods

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Background: Left ventricular endomyocardial biopsy (LV-EMB) may offer a superior diagnostic yield compared with right ventricular endomyocardial biopsy (RV-EMB) in conditions predominantly affecting the LV. Recently, transradial way is used for LV-EMB, and it has lower complication rates and has an advantage of immediate post-procedural ambulation compared with transfemoral technique. Previous reports of transradial LV-EMB need relatively complicated sheathless guiding catheter exchanging.

Purpose: We aimed at finding a novel and easier transradial method with a 6F sheath and a 6F guiding catheter.

Methods and results: In this manuscript, we described a method that allowed interventional cardiologists to obtain LV-EMB via transradial access with a 6F sheath and a 6F guiding catheter. This technique was successfully conducted in 25 consecutive patients at our institution. The transradial success rate was 100% (25 of 25). Mild or moderate radial artery spasm occurred in only 1 (4%) patient, but no severe radial spasm was observed. All the patients were performed coronary angiography and left ventricular angiogram according to the indication, and they were performed EMB through the same radial sheaths without sheathless guiding catheter exchanging. Heparin was administered to 100% of patients at a dose of 5000IU. Median fluoroscopy time was 13.45min. Median total skin dose was 1478mGy. Median area product was 15486 cGy cm². All biopsy samples were graded as excellent quality. Immediate patient mobilization could be achieved in all patients. Radial artery patency was confirmed by doppler ultrasonography 24 hours after the sheath removal. There were no major complications (pericardial tamponade, life-threatening arrhythmia, cerebrovascular accident or death).

Conclusions: The present article demonstrates a result of feasibility, safety and efficacy of a novel transradial access for LV-EMB using a 6F sheath and a 6F guiding catheter. This is of clinical importance since this new technique may overcome the currently existing methods, and may be regarded as an interventional “one stop shop” technique.

Transradial LV-EMB with a 6F sheath
Abstract: P1814
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