Patented Method Guide Aspiration for Coronary Artery Thrombosis: First Results About Efficiency and Safety in Real – World Clinical Practice

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Abstract:

Objective. To evaluate the efficiency and safety of a patented method for performing aspiration thromboembolectomy (ATE) using a guiding catheter in patients with acute coronary syndrome (ACS) and massive coronary thrombosis after failure of standard percutaneous coronary intervention (PCI), involving traditional aspiration thrombectomy in Real – World Clinical Practice.

Methods. Retrospective non-interventional Real – World Study (RWS) included 326 patients (n=326) with ACS (77% men, age 67.9 (9.1) years, M (SD)) and massive coronary thrombosis with ATE between 2023 and 2025. All patients primarily recommended standard surgical approaches and infusion of GP IIb/IIIa. 31.3% (102/326) of cases after ineffectiveness recommended methods (TIMI 0) was used patented method guide aspiration. In 30.4% of cases (31/102), IVUS/OCT was used. The efficiency criterion was an optimal PCI result (TIMI III without hemodynamically significant dissection or embolization, good stent expansion to IVUS/OCT). Safety was assessed based on the incidence of intraoperative complications caused by the patented method (perforation, thrombotic migration, hemodynamically significant dissection outside the target segment, intraoperative MI, and stroke).