

Coronary Angiography Using 4French Catheters: The End of the Radial Approach Era?

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Diagnostic coronary angiography using 4 French (Fr) introducer sheath in femoral approach reduces vascular complications and permits earlier post-procedures ambulation.

On the other hand, the use of small-size diagnostic catheters may result in suboptimal imaging quality, and thus may require in-procedure upsizing of sheath. Moreover, transition of the procedure to PCI requires this change too. In the real life it reduces operator's enthusiasm to begin angiography with small- size sheath. AIM: To clarify volume of 4 Fr catheters procedures at our institution and to learn pitfalls.

METHOD: Retrospective study based on data record of coronary angiography at our department from January 2007 to October 2009.

RESULTS: From Jan. 2007 to Oct. 2009 the total number of 4 Fr procedures was 795.

621 of them were diagnostic only and were completed with 4 Fr - 78% of all 4 Fr procedures and 38% of the total number of diagnostic procedures that were performed at our department in this period. In 148 (19%) 4-Fr procedures the sheath was upsized in order to treat, in 18 (2%) diagnostic angiographies were continued to PCI with replacement to 6.5 Fr SheathLess Guiding catheter, all of them were completed successfully. The SheathLess Guiding catheter is generally designed for radial approach, while using it via femoral access- is the invention of our department.

Only in 8 (1%) procedures upsizing was performed because of poor image quality in order to complete diagnostic angiography.

There were 22 cases of serious bleeding complication according to records, only 1 of them was after 4 Fr.

CONCLUSION: " poor quality image" –is not a future of 4 Fr catheter. Minimal bleeding complication rate, early ambulation, easiness of upsizing or replacement with SheathLess system (aimed to continue procedure to PCI) make 4 Fr femoral approach attractive and put it in line with radial approach and possibly even stand it one step ahead.