

Coronary artery dissection during PCI with stenting: A nightmare for the interventional cardiologist in resource constrain Cath-Lab



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Abstract

Introduction

Despite numerous benefits, serious and potentially life-threatening complications of PCI can occur, including iatrogenic coronary dissection and perforation. Up to 30% of all conventional balloon angioplasties result in angiographically significant coronary artery dissection. Percutaneous coronary intervention, which depends upon mechanical dilatation of the artery or ablation of atherosclerotic plaque, is requisitely associated with plaque fracture, intimal splitting and localized medial dissection. these tears may extend into the media for varying distances, and may even extend through the adventitia resulting in frank perforation and in the pre-stent era occurred in up to 11% of all elective PTCAs. with the advent of coronary stents, the incidence of acute closure in elective PCI is now less than 1%. In recent registries, perforation has been reported to occur in 0.3-0.6% of all patients undergoing PCI acute vessel closure is the most feared complication due to coronary artery dissection and is night mare for the interventional cardiologist specially working in resource constrained Cath-labs of Developing Countries. A retrospective analysis of PCI in 1400 cases performed in Cath-lab of cardiology department in teaching hospital of Dow university of health and sciences Karachi from 2013 to 2016 was conducted in patients with acute myocardial infarction or unstable angina. 28 Patients had dissection with following characteristics Calcified lesions in 15, Eccentric lesions in 12, Long Lesions 16, Complex lesion morphology and vessel tortuosity 0.6% in patients and a balloon to artery ratio in >1.2% was found in 14 patients. Dissection in these patients resulted in unstable angina 1.12%, Acute MI 2.24%, Patients underwent CABG in 0.56% and further angioplasty with stenting performed 2.08% patients remaining 1.12% had minor dissection in extent were medically managed. Management of a case of left main dissection with PCI is included in this Presentation. A 45-year-old hypertensive female patient and a Hx of angina for the last 2 years, presented in cardiac ER with c/o chest pain for more than 30 mins the patient was taken in as a case of ACS will be discussed in this Presentation.

Conclusion

Coronary artery dissection remains a common occurrence during PCI but clinical sequelae have been minimized by the routine use of coronary stents. Rapid recognition and attention to the angiographic appearance of the dissection is essential to the successful management of this complication. The best way to prevent procedure-induced dissection is through careful evaluation and technique of procedure, followed by immediate stent implantation is a good option to provide the possible best outcome with Expert Interventional Cardiologist even in resource constrained Cath-lab.

Biography

Khalid Soomro is the first female cardiologist in Pakistan, She has been involved in the field for 32 years. Since 1984, and have been on the faculty in the Cardiology Department at Dow University of Health Sciences, Karachi, serving as professor and chairperson. For 15 years, she was the top cardiologist at Dow, one of the oldest and premier medical institutions in Pakistan. And she is also a Consultant Cardiologist in North Bristol NHS Trust, Southmead Hospital at Bristol, UK.

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