# Healthy Heart

Volume-9 | Issue-104 | July 5, 2018

Price : ` 5/-



Honorary Editor :

Dr. Keyur Parikh

Dr. Vipul Kapoor


## From the Desk of Hon. Editor:

Considering lesion priority and its clinical consequences, Coronary Artery Bypass Grafting (CABG) has been a treatment of choice for revascularization in patients with significant Left Main Coronary Artery (LMCA) disease. However, the patients with severe Left Main stenosis have a very high risk of major cardiovascular events because of the extent of ischaemic myocardium. So, we can say that left main coronary artery disease is the most prognostically important coronary lesion.

Significant stenosis of Left Main is diagnosed in 5–7% of patients undergoing coronary angiography.

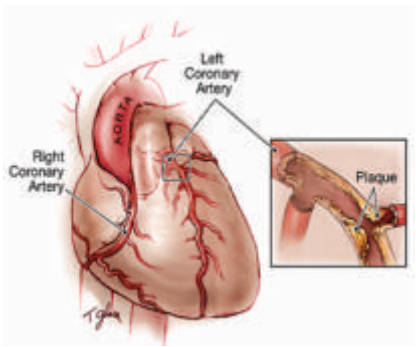
Considering lesion priority and its clinical consequences, Coronary Artery Bypass Grafting (CABG) has been a treatment of choice for revascularization in patients with significant Left Main Coronary Artery (LMCA) disease. However, with remarkable advancements in techniques of Percutaneous Coronary Intervention (PCI), supporting devices, and adjunctive pharmacologic therapy, PCI with stenting has emerged to be a less invasive and feasible revascularization treatment for these patients.

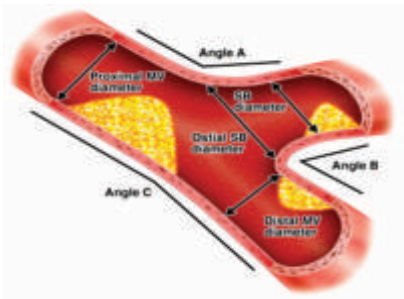
This review attempts to highlight the indications, technique and treatment modalities for Left Main disease with Multi Vessel PCI in Case of Seropositive Illness with Thrombocytopenia.

## Left Main with Multi Vessel PCI (in Case of Seropositive Illness with Thrombocytopenia)

### Background:

The Left Main Coronary Artery (LMCA) supplies two-thirds of blood to the heart and 100% of the blood flow to the left ventricle. The distal LMCA ends in a bifurcation, or even trifurcation, giving




rise to the left anterior descending (LAD) and left circumflex (LCX) arteries, and probably an intermedius artery.

### Left Main Distal Bifurcation Lesion :

- 70% of significant LMCA lesions involve the distal bifurcation.
- Intimal atherosclerosis in the LMCA bifurcation is accelerated primarily in area of low shear stress in the lateral wall

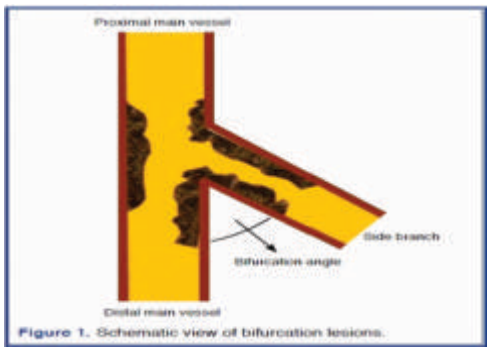
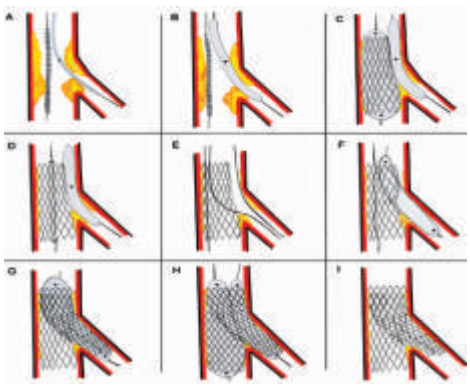


Figure 1. Schematic view of bifurcation lesions.

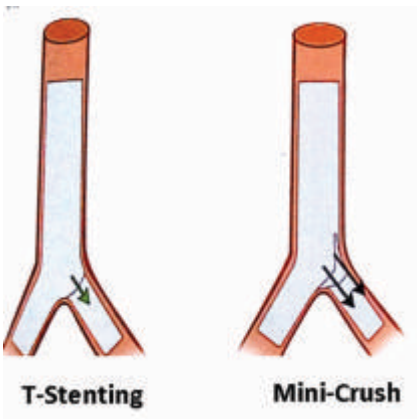
close to the LAD and LCX bifurcation.

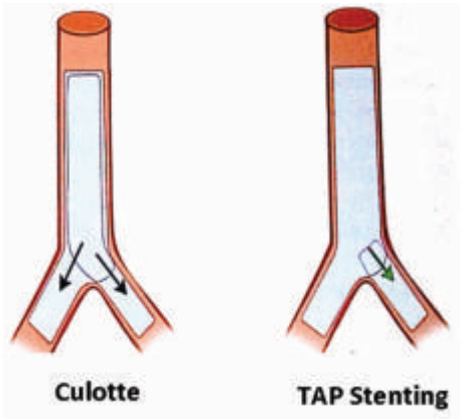
- LMCA stenosis is the most challenging lesion in patients with acute coronary syndromes placing the patient at high risk for life threatening LV dysfunction and arrhythmias.
- Since the amount of myocardium at



risk is very high, the patient is often in cardiogenic shock, and the risk of death is high and even more so in left dominant coronary system.

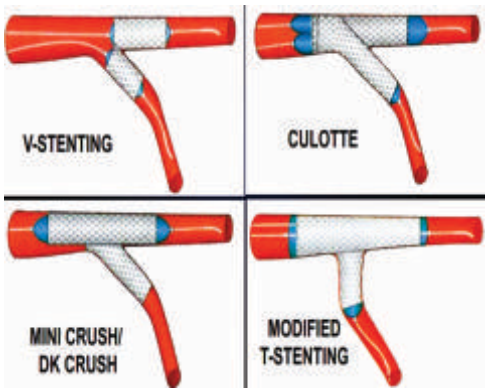
- Distal LMCA lesions are mostly treated as true bifurcation. The exception to this is when one branch is small (usually the LCX), when one branch is chronically occluded or if protected by a patent graft.
- In these circumstances the distal lesion may be stented with a single-stent technique, stenting across the ostium of the other vessel. True bifurcation lesions may be treated either by single-stent or by a two-stent strategy. Choice of strategy depends on vessel and lesion characteristics [plaque distribution, the diameter of the branches, the angle between them and anatomy of Side Branch (SB)].
- The provisional stenting is a single-stent strategy, although it allows the placement of a second stent if required [T, T and protrusion (TAP), culotte technique]. More complex lesions may require double-stent strategy (T stenting, TAP, mini-crush, double-kiss crush, culotte, V stenting).




## SIGNIFICANCE OF MINI CRUSH STENTING

- The crush technique can be used when the diameter of the main vessel is greater than the side branch and the angulation is favorable (approximately ≤




60%). The side branch is tented first, positioning the stent to allow 1– 2 mm (Mini-Crush) to protrude into the Left Main. The main vessel is then stented.

- Deployment of the main vessel stent crushes the proximal side branch stent against the Left Main wall. It is necessary to rewire the LCX, through the stent struts of both the LAD and crushed LCX stent to perform a final post-dilatation of the side branch ostium and a final 'kissing balloon' inflation.

Selection Criteria for Mini-Crush Stenting:

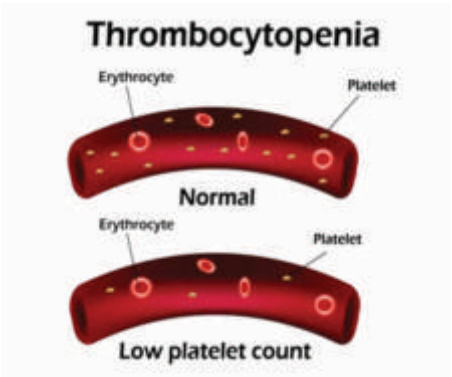
- Presence of significant bifurcation stenosis extending into ostia of both branches
- LMCA not large enough to accommodate two stents
- Angle Between LAD and LCX More Acute (<70°)

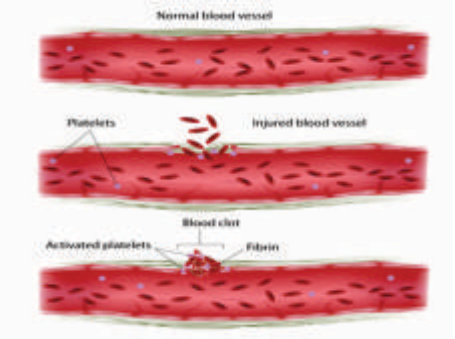
Advantages of Mini-Crush Stenting:

- Applied in clinically unstable lesions and complex anatomies
- Maintains patency of both branches
- Provides excellent coverage of SB ostium
- Allows access of SB with wires and balloon
- Better contact of SB struts against the wall

Thrombocytopenia:

- Thrombocytopenia (TP) is associated with a variety of etiologies. These include increased utilization or destruction, decreased bone marrow production, immune mechanisms, adverse drug effects, and infectious agents.



Classification of Thrombocytopenia

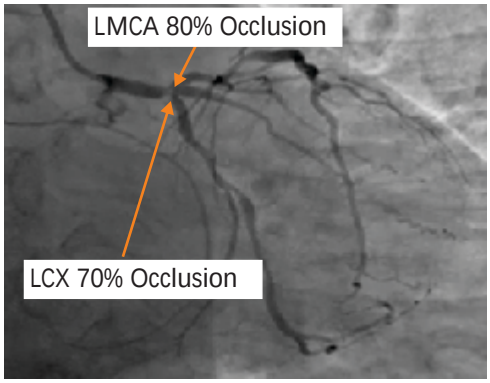
| Classification | Platelet Count |
|---|---|
| Mild | <150?109/L but ≥100?109/L |
| Moderate | <100?109/L but ≥50?109/L |
| Severe | <50?109/L |

- Seropositive illness with Thrombocytopenia is a relatively rare finding, particularly in patients with coronary artery disease.
- Percutaneous Coronary Intervention (PCI) as well as Coronary Artery Bypass Grafting (CABG) has traditionally not been an option for patients with severe thrombo-cytopenia, because these patients are felt to be at increased risk for bleeding complications resulting from the required peri-procedural anti-coagulation and post-procedural Dual Antiplatelet Therapy (DAPT).
- This speculation is indirectly supported by a recent study done by Overgaard CB et al. in which the baseline TP emerged as an independent predictor of mortality in patients undergoing PCI.

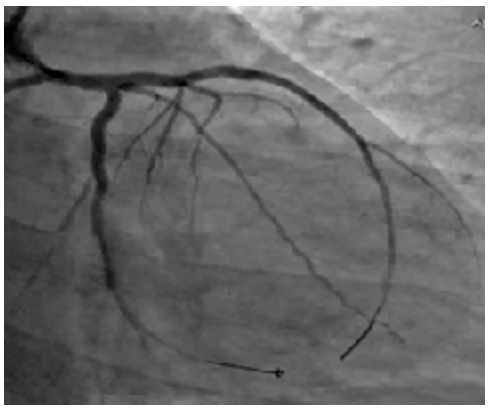
Case Presentation :

Patient Details : Gender – Male
Age – 56 years
History of : Hypertension
Presentation : Chest pain
Coronary Artery Disease
Unstable Angina
TMT Positive
Triple Vessel Disease
Fair LV Systolic Function
Vitals : BP – 110/70 mmHg
HR – 78 bpm
Platelet Count : 39000 /cmm OR
39x 109/L
Seropositive Illness
ECHO Findings

- Normal sized LA, LV, RA, RV.



Before Angioplasty


After Angioplasty

- Normal LV systolic function, LVEF: 55-60%
- No significant RWMA.
- Reduced LV compliance
- All cardiac valves are structurally normal.
- Mild MR (20%), mild TR, Trivial PR, No AR.
- Mild PAH, RVSP: 40 mm Hg.
- No clot/vegetation/pericardial effusion.
- No coarctation of aorta

Angiography Report
CORONARIES

LMCA : Distal shows 70% lesion
LAD : Proximal shows 60% lesion, Mid shows 80% lesion RAMUS
: Mid shows diffuse disease
LCX : Non Dominant, Origin shows 50% plaque, Proximal 70% lesion
OM1 : Proximal shows 80% lesion
RCA : Dominant, Proximal – Mid shows 99% lesion

Advised for PTCA + Stenting of LMCA LAD and LCX using DES

Strategies to Minimize Bleeding Risk in Patients with Significant Thrombo-cytopenia

- Avoid non-steroidal anti inflammatory drugs
- Avoid glycoprotein IIb/IIIa inhibitors
- Utilize a proton pump inhibitor unless contraindicated
- Aspirin should be used in low-dose.
- If a patient is already receiving a long-term anticoagulation agent, triple therapy should be avoided
- If a patient is undergoing percutaneous coronary intervention:
  - Radial approach preferred to femoral approach
  - Restrict dual antiplatelet therapy to 1?month post-stent
  - Second generation drug-eluting stent preferred to bare-metal stent

- Coronary bifurcation disease is a very challenging subset in interventional cardiology. A provisional approach with MB stenting is the preferred choice in most bifurcations lesions but it is very important to select the most appropriate approach for each bifurcation based on anatomical variables and operator experience.
- Regardless of strategy choice (one versus two stents), DES have dramatically improved the long term outcomes and should be the preferred device. We believe that the future perspective is primarily related to the development and refinement of dedicated bifurcation stents, which may simplify the procedure by adapting to the complex anatomy of bifurcation disease, and, at the same time, improving the long-term clinical outcomes.
- In patients with severe TP, PCI is feasible and generally well tolerated. The main drawbacks are the bleeding complications, which are frequent and may have a negative clinical impact.
- Stenting of Unprotected stenosis can be performed with good results in carefully selected patients.
- For the Unprotected bifurcation, single stent strategies are still preferred and should yield acceptable results for >80% of cases.
- Careful management with the radial artery as the access site, DES implantation and a short DAPT protocol may help to improve their outcome.
- Also, close monitoring is crucial to improve compliance with therapy and minimize adverse events.

Dr. Keyur Parikh
MD (USA), FCSI (India), FACC (USA), FSCAI (USA)
Interventional Cardiologist
Mo. 98250 26999

Dr. Vipul Kapoor
MBBS, MD (Gen.Medicine), DNB (Cardiology), MNAMS, FESC, FSCAI
Interventional Cardiologist
Mo.98240 99848

# CIMS Learning Centre

Skills Development Centre

## ORAL CAVITY CANCER OVERVIEW

| | | |
|---|---|---|
| Course Directors | : | Dr. Darshan Bhansali / Dr. Jayesh V. Patel / Dr. Tarang Patel<br>Dr. Natu Patel / Dr. Devang Bhavsar |
| Duration | : | 1 day |
| Number of seats | : | 50 |
| Venue | : | CIMS Auditorium |

**August 12, 2018 (Sunday)**

### Programme Overview:

India is the capital country for oral cavity cancers. It is important to have a sound knowledge of oral cavity anatomy for good management and outcomes. This programme is crafted for all those who deal with oral cavity cancers and the updated knowledge on the management is the need of the hour. This course is helpful for ENT surgeons, dental surgeons, surgical residents.

### Programme Highlights:

- Surgical anatomy and its implications
- Diagnosis and pathology of oral cancers alongwith outline of premalignant lesions
- Factors affecting plan of treatment
- Imaging-which, when and why
- Reconstruction methods
- Adjuvant (radiation & chemotherapy) treatments

Online registration & payment on www.cims.org /clc

Registration Fees: ` 500/- | Spot Registration Fees: ` 1,000/-

Non-refundable

For any query, please email on : clc@cimshospital.org

> Certificate of attendance will be given at the end of the course.

CIMS HOSPITAL

# FEVER CLINIC

## Got these signs ?

### DENGUE

**Signs & Symptoms**

- High Fever
- Muscle & Joint pains
- Pain behind the eyes
- Diarrhea & Vomiting
- Skin Rashes

### MALARIA

**Signs & Symptoms**

- Diarrhea & Vomiting
- Sweating
- Headache
- Nausea
- Abdominal Pain
- Shaking Chills - High Fever
- Chills and Rigors

### CHIKUNGUNYA

**Signs & Symptoms**

- Fever
- Joint Pains
- Muscle Pains
- Headache
- Nausea

### SWINE FLU (H1N1 INFLUENZA)

**Signs & Symptoms**

- High Fever
- Bodyache
- Headache and Malaise
- Cough and Cold
- Sore Throat
- Diarrhea
- Vomiting or Nausea

Complications could occur due to Swine Flu and could involve different organs such as Lung injury, Pneumonia, Kidney Failure, Brain Infection, etc.

## FEVER CLINIC HELPLINE +91-70 69 00 00 00

### ISOLATION UNIT

One-of-its-kind Isolation Unit for Critically ill Patients

"We look forward to save lives."

PROTECT YOURSELF FROM SWINE FLU

H1N1 Influenza (Swine Flu) vaccine is available at CIMS Hospital.

Get Vaccinated Today

For Appointment & Information

Contact :- Mr. Dixit Chaudhari

+91-9099067988

CIMS®
CARE INSTITUTE OF MEDICAL SCIENCES
Earning Trust with World-Class Practices

Off. Science City Road, Ahmedabad - 380060
Ph. : +91-79-2771 2771-72 | Fax : +91-79-2771 2770
Email : info@cims.org | www.cims.org

AMBULANCE : +91-98 24 45 00 00 | EMERGENCY : +91-97 23 45 00 00 | 24 X 7 MEDICAL HELP LINE +91-70 69 00 00 00

CIMS HOSPITAL

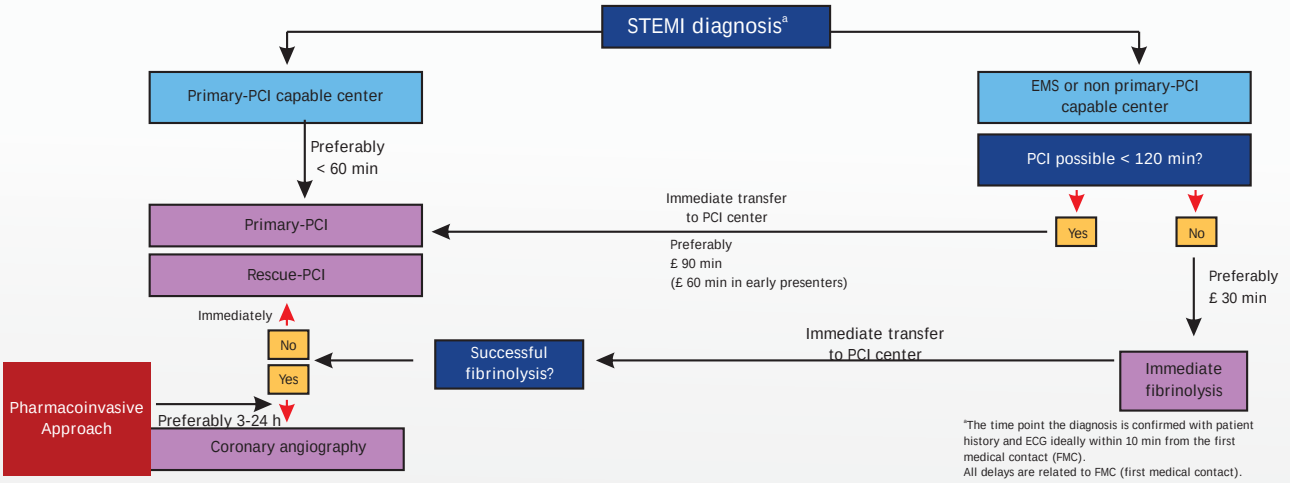
# CIMSTEMI

## FOR FAST LIFE-SAVING HEART TREATMENT

### What is STEMI ?

The most deadly type of Heart Attack where in coronary artery gets completely blocked


Pre-hospital and in-hospital management, and reperfusion strategies within 24 h of FMC
European Society of Cardiology guidelines




Cath = catheterization laboratory; EMS = emergency medical system; FMC=first medical contact; PCI = percutaneous coronary intervention; STEMI = ST-segment elevation myocardial infarction.

ACC International Centers of Excellence

ACC - American College of Cardiology Centre of Excellence

One of the only Centres in India for high-standards of medical practice and dedication in providing quality cardiovascular care

*As early as possible after onset of Heart Attack (STEMI)

**24 X 7 HELPLINE +91-70690 00000**

CIMS® CARE INSTITUTE OF MEDICAL SCIENCES
Earning Trust with World-Class Practices

Off. Science City Road, Ahmedabad - 380060
Email : info@cims.org | www.cims.org

AMBULANCE : +91-98 24 45 00 00 | EMERGENCY : +91-97 23 45 00 00

Healthy Heart

Volume-9 | Issue-104 | July 5, 2018

Healthy Heart Registered under RNI No. GUJENG/2008/28043
Published on 5th of every month
Permitted to post at PSO, Ahmedabad-380002 on the 12th to 17th of every month under
Postal Registration No. GAMC-1725/2018-2020 issued by SSP Ahmedabad valid upto 31st December, 2020
Licence to Post Without Prepayment No. PMG/HQ/055/2018-20 valid upto 31st December, 2020

If undelivered Please Return to :

CIMS Hospital, Nr. Shukan Mall,

Off Science City Road, Sola, Ahmedabad-380060.

Ph. : +91-79-2771 2771-72

Fax: +91-79-2771 2770

Mobile : +91-98250 66664, 98250 66668

Subscribe "Healthy Heart" : Get your "Healthy Heart", the information of the latest medical updates only ` 60/- for one year.
To subscribe pay ` 60/- in cash or cheque/DD at CIMS Hospital Pvt. Ltd. Nr. Shukan Mall, Off Science City Road, Sola, Ahmedabad-380060. Phone : +91-79-3010 1059 / 3010 1060. Cheque/DD should be in the name of : "CIMS Hospital Pvt. Ltd."
Please provide your complete postal address with pincode, phone, mobile and email id along with your subscription

# CIMS Learning Centre

Skills Development Centre

## OPHTHALMOLOGY

Course Director : Dr. Smita Dheer
Duration : 1 day
Number of Seats : 50
Venue : CIMS Auditorium

**July 22, 2018 (Sunday)**

### Programme Overview:

As Diabetes is one of the commonest ailment we come across as general practioners, we are going to discuss correlation of diabetic eye diseases (retinopathy) with glycemic control and nephropathy. A multi-specialist team of ophthalmologist, nephrologist and endocrinologist will form a panel at this course.

Red Eyes and common eye problems will also be discussed to impact daily practice. Interesting cases will be presented to help in day to day clinical practice along with an insight into cataract surgery how it has evolved, and what is the future.

Online registration & payment on www.cims.org /clc

Registration Fees: ` 500/- | Spot Registration Fees: ` 1,000/-

Non-refundable

For any query, please email on : clc@cimshospital.org

> Certificate of attendance will be given at the end of the course.

CIMS Hospital : Regd Office: Plot No.67/1, Opp. Panchamrut Bunglows, Nr. Shukan Mall, Off Science City Road, Sola, Ahmedabad - 380060.
Ph. : +91-79-2771 2771-72 Fax: +91-79-2771 2770.
CIMS Hospital Pvt. Ltd. | CIN : U85110GJ2001PTC039962 | info@cims.org | www.cims.org

**Printed, Published and Edited by Dr. Keyur Parikh on behalf of the CIMS Hospital**
**Printed at Hari Om Printery, 15/1, Nagori Estate, Opp. E.S.I. Dispensary, Dudheshwar Road, Ahmedabad-380004.**
**Published from CIMS Hospital, Nr. Shukan Mall, Off Science City Road, Sola, Ahmedabad-380060.**



CIMS® CARE INSTITUTE OF MEDICAL SCIENCES
Earning Trust with World-Class Practices