

ACUTE MI, PCI AND CABG



DISCOVERY OF ACS BIOLOGY



1980s

The term 'vulnerable plaques' is coined, referring to precursor lesions from which MIs frequently develop



ANTI-PLATELET THERAPIES AND ASPIRIN

1950s

Antiplatelet effects of aspirin are first recognized when prolonged bleeding time is observed in patients with cardiovascular disease

1980s

First clinical studies demonstrate early administration of aspirin significantly reduces mortality from myocardial infarction

1990s

Antiplatelet therapies including Ticlopidine, Abciximab and Clopidogrel, are approved by FDA

2000s

Dual antiplatelet therapy (DAPT) is introduced, usually consisting of the combination of low-dose aspirin, with a P2Y12 receptor inhibitor

2011

ACC/AHA Guideline codifies recommendation for DAPT following a drug-eluting stent

ACUTE MI, PCI AND CABG



VENOUS AND ARTERIAL GRAFTING FOR CABG

1960s Coronary artery bypass grafting (CABG) introduced

1968 First LIMA-to-LAD bypass performed, becoming the first surgical technique to become a quality metric

CARDIOPULMONARY BYPASS



1953

The first successful human cardiac surgery using cardiopulmonary bypass is performed by Dr. John Gibbon for repair of an atrial septal defect

CORONARY CARE UNITS

1960s

First coronary care units (CCUs) are established in an effort to reduce deaths from acute myocardial infarction

CORONARY ANGIOGRAM

1958

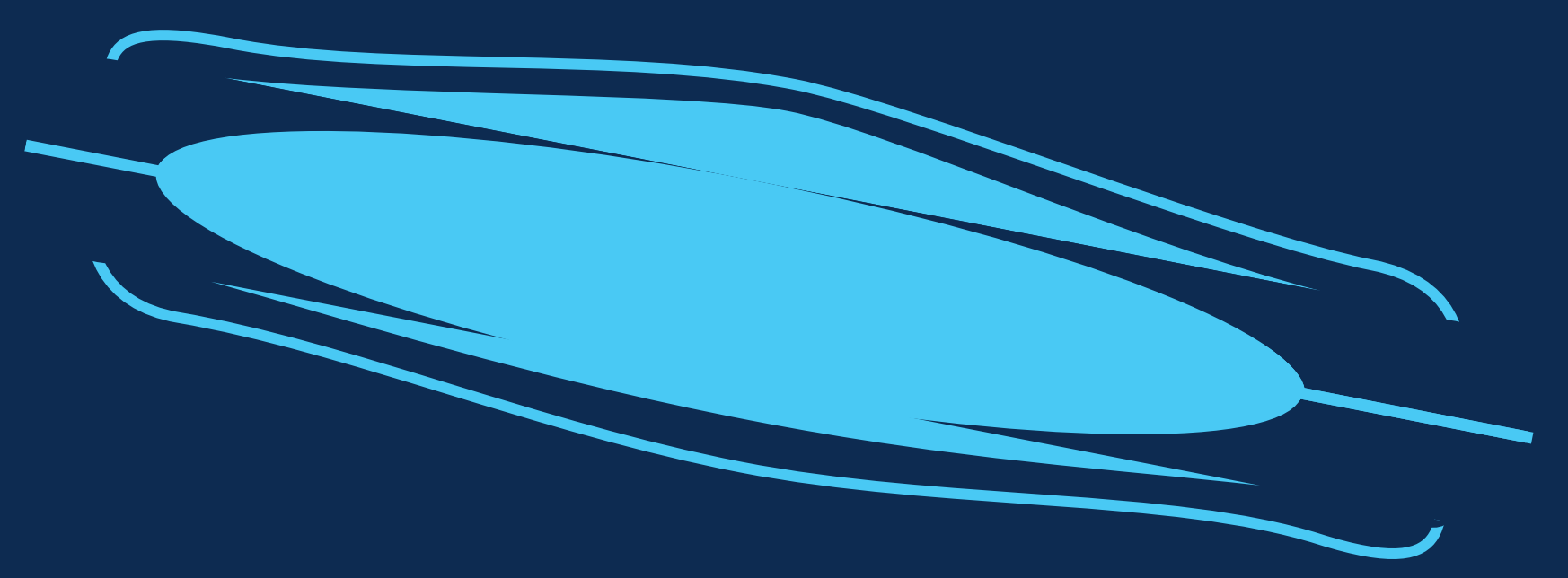
First selective coronary angiogram performed



ACUTE MI, PCI AND CABG



PERCUTANEOUS CORONARY INTERVENTION



1964 First percutaneous transluminal angioplasty

1977 First percutaneous coronary intervention (PCI) is performed by Dr. Andreas Grüntzig

1980s The introduction of bare metal stents (BMS) improves clinical outcomes



2002 First generation drug-eluting stents (DES) are introduced, addressing the issue of in-stent restenosis

INTRACORONARY IMAGING

1989

Introduction of intravascular ultrasound (IVUS) paves the way for advancements in optical coherence tomography (OCT), ultimately revolutionizing the visualization and assessment of coronary artery disease

FRACTIONAL FLOW RESERVE

1990s Fractional flow reserve (FFR) is first used as a diagnostic technique to accurately measure blood pressure and flow through an isolated coronary artery segment



ACUTE MI, PCI AND CABG



THROMBOLYTIC THERAPY

1980s

The beginning of the thrombolytic era, including the first large-scale randomized mortality trial – GISSI-1 – definitively showing that intravenous thrombolytic therapy with streptokinase improves survival



DOOR TO BALLOON

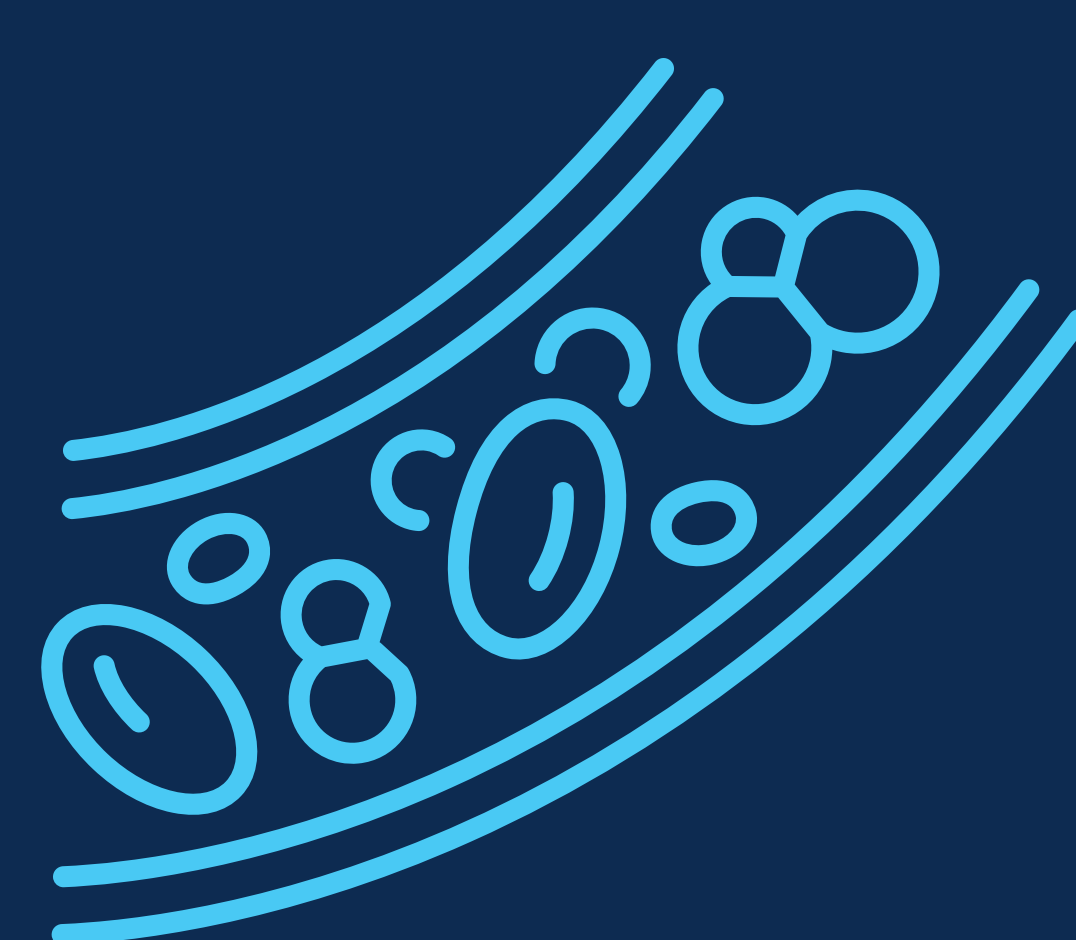
2006

ACC launches the Door-to-Balloon (D2B) Initiative to reduce D2B times to 90 minutes or less in patients with ST-segment elevation myocardial infarction with emergency PCI

MINOCA

2013

The *Journal of Internal Medicine* becomes among the earliest to use the term “MINOCA” when discussing patients experiencing a myocardial infarction without significant coronary artery obstruction



2019

American Heart Association Scientific Statement provides an updated definition of MINOCA and a framework for patient evaluation and management