G-C-11

Streptokinase is Ineffective in Restoring Early Myocardial Reperfusion in Asian Patients with Acute Myocardial Infarction

WH Chen[1], YK Lau[1], PY Lee[2], TM Mok[3], M Évora[3], CP Lau[2].
Department of Medicine, Ruttonjee Hospital[1] and Queen Mary Hospital[2], Hong Kong; Cardiologia, Centro Hospitalar Conde de São Januário[3], Macau; China.

Background: ST resolution after fibrinolytic therapy is a marker of myocardial reperfusion and a prognosticator of mortality. We sought to determine the efficacy of streptokinase in myocardial reperfusion in an Asian population with acute myocardial infarction by using 60-minute ST resolution and the predictors of complete ST resolution.

Patients and Method: We conducted a retrospective study on 96 consecutive Asian patients with acute myocardial infarction. All received streptokinase and had interpretable EKGs before and 60 minutes after streptokinase initiation. ST resolution was categorised into three groups: complete (≥ 70%), partial (30% to < 70%) and no (0% to < 30%). Independent predictors of complete resolution were identified by multivariate analysis.

Results: The incidence of complete, partial, and no ST resolution was 24%, 27%, and 49% respectively. Independent predictors of complete ST resolution were inferior infarction (OR 7.82; CI 2.58 – 23.68) and smoking history (OR 5.2; CI 1.42 – 19.07). In a subgroup of patients (n = 43) with interpretable EKGs at both 60 and 90 minutes, the incidence of complete, partial and no ST resolution changed from 12%, 23%, and 65% to 26%, 44%, and 30% respectively (p = 0.01).

Conclusion: Streptokinase restored myocardial perfusion in 24% of an Asian population 60 minutes after initiation. Independent predictors of myocardial reperfusion were inferior infarction and smoking history. the majority of patients without complete ST resolution at 60 minutes did not have successful myocardial reperfusion by 90 minutes without additional intervention.

G-C-12

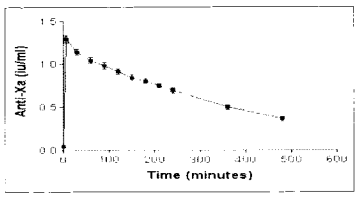
The Use of Enoxaparin in Chinese Patients Undergoing Percutaneous Coronary Intervention: Observations on Safety, Efficacy, and Pharmacokinetics from a Pilot Study

WH Chen[1], CP Lau[2], YK Lau[1], RWF Lam[2], PY Lee[2], E Ma[3], CM Yu[2], W Ng[2].
Department of Medicine, Ruttonjee Hospital[1]; Department of Medicine[2] and Pathology[3], Queen Mary Hospital.

Background: Enoxaparin (EN) has been shown to be superior to unfractionated heparin (UFH) in reducing ischaemic complications in patients with non-ST-elevation acute coronary syndromes. Recent Caucasian studies demonstrated similar efficacy and safety between EN and UFH in patients undergoing percutaneous coronary intervention (PCI). The safety, efficacy, and pharmacokinetics of EN for PCI in Chinese patients are unknown.

Patients and Method: Intravenous (IV) EN 1 mg/kg was administered to 25 consecutive Chinese patients (age 62 ± 10 years, female 16%, diabetes 32%, hypertension 44%, prior myocardial infarction [MI] 44%) undergoing PCI (stable angina 92%, stent 92%, 2-vessel 16%, B2/C lesions 48%). Blood samples for anti-Xa level and aPTT were assayed before and after EN administration at the following intervals: 5, 30, 60, 90, 120, 150, 180, 210, 240, 360, and 480 minutes. Activated clotting time was assessed 5 minutes after EN administration. The primary endpoint was the incidence of in-hospital bleeding complications as defined by the Thrombolysis In Myocardial Infarction (TIMI) scale. The secondary endpoint was a composite of death, MI, or urgent revascularisation within 30 days of PCI.

Results: No TIMI major or minor bleedings occurred within the hospitalisation for the PCI (median stay post PCI = 1 day). There was no death or urgent revascularisation up to 30 days. One patient developed a non-Q-wave MI after the PCI before hospital discharge (4%). The anti-Xa profile is shown below:



Conclusion: EN is safe and effective for PCI in this small cohort. In this first pharmacokinetic study of IV EN in Chinese, the peak anti-Xa level is lower than that reported from preliminary results of Caucasian series and needs confirmation.