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COMPARING FONDAPARINUX WITH ENOXAPARIN FOR THE TREATMENT OF NON-ST ELEVATION ACUTE CORONARY SYNDROME

Background

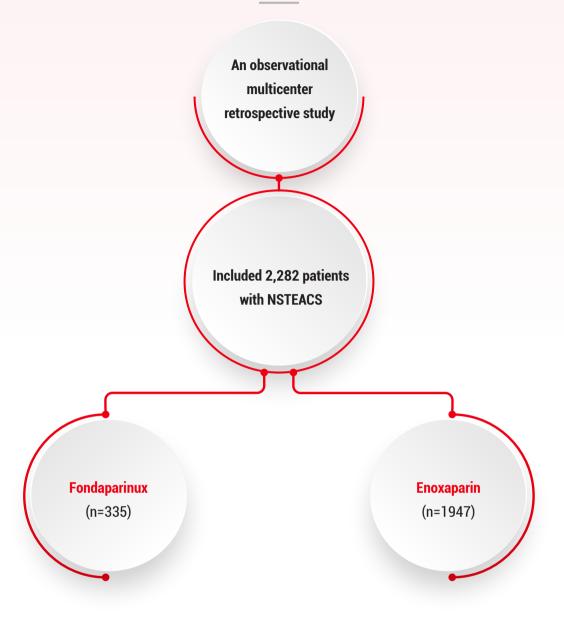
- ► The use of anticoagulant agents in Acute Coronary Syndrome (ACS) is important as they impact the reduction of events and mortality.
- ▶ Although, the choice for better anticoagulant therapy is still controversial in patients with ACS.
- ► In recent studies, fondaparinux is seen to be superior to enoxaparin in patients with Non-ST Elevation ACS (NSTEACS), particularly in terms of bleeding.

Objective

The goal of the study was to compare fondaparinux to enoxaparin in the in-hospital prognosis of Non-ST Elevation ACS.



Study details



Outcome measured

Primary outcome: In-hospital mortality.

Secondary outcome: Combined events (cardiogenic shock, myocardial infarction, death, ischemic stroke, and major bleeding).

Results

- Systemic arterial hypertension was the most prevalent risk factor in all cases (71%).
- ▶ The percutaneous coronary intervention was seen in -
 - 40.2% in the fondaparinux group
 - 35.1% in the enoxaparin group
- ▶ In terms of haemorrhagic complications, femoral artery pseudoaneurysm was the most common, followed by hemorrhagic stroke and high digestive bleeding associated with hemodynamic instability and/or a drop in haemoglobin <3.0 g/dL.
- ▶ The multivariate analysis comparing different in-hospital outcomes between the two groups is as seen in the table and figure.
- ► Significant differences were seen between the two groups in relation to combined events and bleeding. (Table)

Table: Multivariate analysis results comparing different in-hospital outcomes between the two groups

| | Fondaparinux (%) | Enoxaparin (%) | Odds Ratio | p- value |
|-------------------|------------------|----------------|------------|----------|
| Reinfarction | 6.1 | 10.5 | 1.23 | 0.7 |
| Cardiogenic shock | 2.1 | 2.9 | 6.38 | 0.08 |
| Bleeding | 2.3 | 5.2 | 4.55 | 0.037 |
| Stroke | 1.1 | 0.6 | 2.49 | 0.376 |
| Mortality | 2.2 | 2.8 | 1.71 | 0.125 |
| Combined events | 13.8 | 22 | 2.93 | 0.007 |

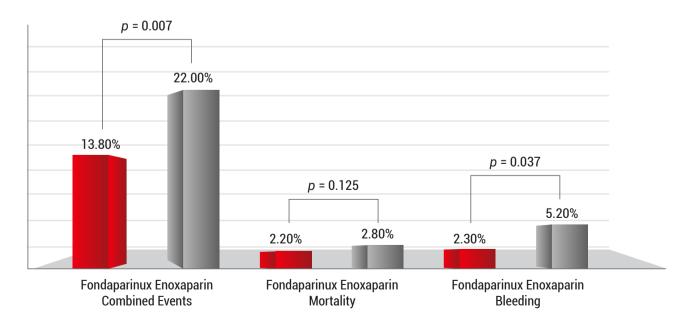


Figure: Comparative evaluation of mortality, combined events, and bleeding between the two groups

Conclusion

Fondaparinux was proved to be superior to enoxaparin with a significant reduction in combined events and bleeding.



Take home points

- Similar results were observed in 2006 OASIS-5 study with respect to the primary outcome.
- The main differentiator between fondaparinux and enoxaparin is the lower risk of bleeding associated with its use.
- Smaller dose is amplified in terms of the anticoagulant effect because fondaparinux is a very specific and reversible factor Xa inhibitor.
- Due to bleeding reduction and lesser rate of mortality from fondaparinux use, several studies have shown better cost-benefit.

For the use of a Registered Medical Practitioner or a Hospital or a Laboratory.

Reference:

Soeiro AM, Silva PG, Roque EA, Bossa AS, César MC, Simões SA, et al. Fondaparinux versus Enoxaparin - Which is the Best Anticoagulant for Acute Coronary Syndrome? - Brazilian Registry Data. Arq Bras Cardiol. 2016 Sep;107(3):239-244.