

## **BIVALIRUDINA NEI PAZIENTI CON SCA SOTTOPOSTI AD ANGIOPLASTICA CORONARICA: RISULTATI DEL SOTTOSTUDIO ACUITY-PCI.**

Sono stati recentemente pubblicati su *Lancet* i risultati dello studio ACUITY-PCI, sottostudio costituito dall'analisi del 7789 sottoposti a PTCA nel corso del trial, di cui si riporta l'abstract ed un breve commento:

### **Bivalirudin in patients with acute coronary syndromes undergoing percutaneous coronary intervention: a subgroup analysis from the Acute Catheterization and Urgent Intervention Triage strategy (ACUITY) trial**

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**Background:** The aim of this study was to assess anticoagulation with the direct thrombin inhibitor bivalirudin during percutaneous coronary intervention in individuals with moderate and high-risk acute coronary syndromes.

**Methods:** 13 819 individuals in the Acute Catheterization and Urgent Intervention Triage strategy (ACUITY) trial were prospectively randomly assigned to receive heparin (unfractionated or enoxaparin) plus glycoprotein IIb/IIIa inhibitors, bivalirudin plus glycoprotein IIb/IIIa inhibitors, or bivalirudin alone. Of these individuals, 7789 underwent percutaneous coronary intervention after angiography. The effect of the three regimens on the primary 30-day endpoints of composite ischaemia (death, myocardial infarction, or unplanned revascularisation for ischaemia), major bleeding, and net clinical outcomes (composite ischaemia or major bleeding) was assessed in this subgroup. Analyses were done by intention to treat. This trial is registered with [ClinicalTrials.gov](https://clinicaltrials.gov), with the number NCT00093158.

**Findings:** Of the individuals who underwent percutaneous coronary intervention, 2561 received heparin plus glycoprotein IIb/IIIa inhibitors, 2609 received bivalirudin plus glycoprotein IIb/IIIa inhibitors, and 2619 received bivalirudin alone. 26 (0.3%) individuals dropped out or were lost to follow-up. There was no significant difference in the proportion of individuals with composite ischaemia, major bleeding, or net clinical outcomes at 30 days between those who received bivalirudin plus glycoprotein IIb/IIIa inhibitors and those who received heparin plus glycoprotein IIb/IIIa inhibitors (composite ischaemia: 243 [9%] patients vs 210 [8%] patients,  $p=0.16$ ; major bleeding: 196 [8%] patients vs 174 [7%] patients,  $p=0.32$ ; net clinical outcomes: 389 [15%] patients vs 341 [13%] patients,  $p=0.1$ ). Rates of composite ischaemia were much the same in those who received bivalirudin alone and those who received heparin plus glycoprotein IIb/IIIa inhibitors (230 [9%] patients vs 210 [8%] patients,  $p=0.45$ ); however, there were significantly fewer individuals who experienced major bleeding among those who received bivalirudin alone than among those who received heparin plus glycoprotein IIb/IIIa inhibitors (92 [4%] patients vs 174 [7%] patients,  $p<0.0001$ , relative risk 0.52, 95% CI 0.40–0.66), resulting in a trend towards better 30-day net clinical outcomes (303 [12%] patients vs 341 [13%] patients,  $p=0.057$ ; 0.87, 0.75–1.00).

**Interpretation:** Substitution of unfractionated heparin or enoxaparin with bivalirudin results in comparable clinical outcomes in patients with moderate and high-risk acute coronary syndromes

treated with glycoprotein IIb/IIIa inhibitors in whom percutaneous coronary intervention is done. Anticoagulation with bivalirudin alone suppresses adverse ischaemic events to a similar extent as does heparin plus glycoprotein IIb/IIIa inhibitors, while significantly lowering the risk of major haemorrhagic complications.

### **Commento**

I risultati dello studio mostrano che, nella sotto-popolazione di pazienti con SCA che viene sottoposta a rivascolarizzazione percutanea, l'utilizzo della bivalirudina da sola fornisce una protezione in termini di riduzione di eventi ischemici (morte, infarto e rivascolarizzazione per ischemia miocardica) a 30 giorni equivalente alle altre due combinazioni di terapia antitrombotica (bivalirudina ed inibitori gpIIb/IIIa, eparina ed inibitori gpIIb/IIIa). A vantaggio dell'impiego della sola bivalirudina si evidenzia una statisticamente significativa riduzione degli eventi emorragici maggiori. Dall'analisi post-hoc dei sottogruppi, parrebbe tuttavia emergere un trend verso un maggior rischio di eventi ischemici nei pazienti non pretrattati con clopidogrel che vengono sottoposti a PTCA con la sola bivalirudina, e quindi con soltanto l'aspirina come trattamento antiaggregante.

Nell'editoriale che accompagna l'articolo, Ron Waksman solleva alcuni dubbi in merito al disegno dello studio (randomizzazione dei pazienti non stratificata per trattamento ed analisi statistica di potenza non adeguate per un test di non-inferiorità) ed al basso profilo di rischio dei pazienti arruolati, ritenendo pertanto i risultati dello studio non conclusivi in merito alla possibile equivalenza della bivalirudina con l'associazione eparina/inibitori gpII/IIIa in termini di efficacia nei pazienti con SCA.

### **Bibliografia.**

1. Stone GW, White HD, Ohman EM, et al. Bivalirudin in patients with acute coronary syndromes undergoing percutaneous coronary intervention: a subgroup analysis from the Acute Catheterization and Urgent Intervention Triage strategy (ACUITY) trial. *Lancet* 2007; 369:907-919.
2. Waksman R. ACUITY-PCI: one drug does not fit all. *Lancet* 2007; 369:881-882.

*A cura di Alberto Menozzi*