**Appendix Table E51. Results from studies assessing the ability of VASP to predict death in patients with ischemic heart disease**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author,****year****UID****Country****Study name** | **Treatment** | **Phenotypic Test Used [index test]** | **Clinical Outcome** | **Outcome Definition** | **Timing of measurement** | **Index test result: category (e.g., HPR+) – ONE ROW PER PHENOTYPE GROUP** | **Outcome status (e.g., bleeding or no bleeding)** | **No. with outcome status within phenotype group** | **Comparative metric (OR, RR, HR)** | **95% CI** | **P (between which groups?)****[statistical test]** | **Adjusted?****[YES/NO/NR]****If YES, for what factors?** | **Procedures for multiple comparisons [YES, NO, NR]** | **Comments (e.g., additional data in figures)** |
| Freynhofer, 2011{Freynhofer, 2011 1 /id}21614416AustriaNR | Clopidogrel+aspirin | VASP | CV death |  | 6-month | PRI>60.2% (high reactivity, poor response)N=186 |  | 7 | OR (calculated)=4.41 | 0.5-36.4 | P=0.167(poor vs good response)[Fisher's exact] | NR | NR | Get n’s from Fig 1 (pasted in on last page of this form) |
|  |  |  |  |  |  | VASP result: PRI≤60.2% (low reactivity, good response)N=114 |  | 1 |  |  |  |  |  | Get n’s from Fig 1 (pasted in on last page of this form) |
| Bonello, 2007{Bonello, 2007 199 /id}17488353FranceNR | clopidogrel LD 300-mg followed by 75 mg daily  | VASP | Death of cardiovascular origin  | Death of cardiovascular origin | 6-month | Quintile 1N=28 | Death of cardiovascular origin | 0 | OR (calculated)= 0.57 | 0-11.3 | P=0.711(Q1 vs Q2-5)[Fisher's exact] | NR | NR |  |
|  |  |  |  |  |  | Quintiles 2-4N=116 |  | 3(2.6%) |  |  |  |  |  |  |
| El Ghannudi, 2011{El, 2011 3 /id}21524751France NR | Clopidogrel + aspirin | VASP | Cardiac death | any death with a demonstrable cardiovascular cause or any death which was not clearly attributable to a non-cardiovascular cause  | Any point during study period | non-diabetic responders (NDM-R) (PRI <61%) | Cardiac death | 4 (4.2%) | HR 1.74 | 0.43–7.00) | 0.43(univariate analysis)0.004 across all 4 phenotypic groups with 61% cutoff (log-rank test) | NR | NR | Get survival curves from Fig 2 for each of the 4 phenotypic groups |
|  |  |  |  |  |  | non-diabetic low responders (NDM-LR) (PRI≥61%) |  | 4 (2.3%) |  |  |  |  |  |  |
|  |  |  |  |  |  | PRI > 50% (LR to clopidogrel) in patients without diabetes |  |  | HR 1.38  | 0.33–5.81 | 0.66 (univariate analysis) |  |  |  |
|  |  |  |  |  |  | diabetic responders (DM-R) (PRI<61%) |  | 2 (2.4%) |  |  |  |  |  |  |
|  |  |  |  |  |  | diabetic low responders (DM-LR) (PRI≥61%) |  | 9 (12.2%) | HR 5.798 | 1.25–26.86 | 0.025 (univariate analysis) |  |  |  |
|  |  |  |  |  |  | Same as just above except multivariate |  |  | HR 6.09 | 1.27–29.08 | 0.02 (MULTIvariate analysis) |  |  |  |
|  |  |  |  |  |  | PRI > 50% (LR to clopidogrel) in patients with diabetes |  |  | HR 2.81 | 0.60–13.02 | 0.19 (univariate analysis) |  |  |  |
|  |  |  | Total death |  |  | non-diabetic responders (NDM-R) (PRI <61%) |  | 5 (5.3%) |  |  | 0.003 across all 4 phenotypic groups with 61% cutoff (log-rank test) |  |  |  |
|  |  |  |  |  |  | non-diabetic low responders (NDM-LR) (PRI≥61%) |  | 6 (3.4%) | HR 1.53  | 0.47–5.04 | 0.48 (univariate analysis) |  |  |  |
|  |  |  |  |  |  | diabetic responders (DM-R) (PRI<61%) |  | 3 (3.5%) |  |  |  |  |  |  |
|  |  |  |  |  |  | diabetic low responders (DM-LR) (PRI≥61%) |  | 11 (14.9%) | HR 3.84  | 1.04–14.23 | 0.04 (univariate analysis) |  |  |  |
|  |  |  |  |  |  | Same as just above but multivariate analysis |  |  | 4.42 | 1.12–17.40 | 0.03 (MULTIvariate analysis) |  |  |  |
|  |  |  |  |  |  | PRI > 50% (LR to clopidogrel) in patients without diabetes |  |  | HR 1.56 | 0.45–5.37 | 0.48 (univariate analysis) |  |  |  |
|  |  |  |  |  |  | PRI > 50% (LR to clopidogrel) in patients with diabetes |  |  | HR 1.86 | 0.50–6.89 | 0.35 (univariate analysis) |  |  |  |
| El Ghannudi, 2010{El, 2010 74 /id}20630458FranceNR | Clopidogrel LD 300 or 600mg | VASP | Total death  | Total death  | 9 months | Low respondersN=178 | Total death  | 17 (9.6%) | NR | NR | 0.005 (low responder vs responder) | NR | NR |  |
|  |  |  |  |  |  | RespondersN=275 |  | 9 (3.3%) |  |  |  |  |  |  |
|  | Clopidogrel LD 300 or 600mg | VASP | Cardiac death  | Cardiac death  | 9 months | Low respondersN=178 | Cardiac death  | 14 (7.9%) | NR | NR | 0.004 (low responder vs responder) | NR | NR |  |
|  |  |  |  |  |  | RespondersN=275 |  | 6 (2.2%) |  |  |  |  |  |  |
|  | Clopidogrel LD 300 or 600mg | VASP PRI | Cardiac death  | Cardiac death  | 9 months  | PRI≥61% | Cardiac death  | NR | HR=3.65 | 1.40-9.50 | 0.008(≥61% vs <61%)[Cox regression] | No  | NR | Figure 2 and figure 3Kaplan-Meier analysis for cardiac survival  |
|  |  |  |  |  |  | PRI≥50% | Cardiac death  | NR | HR=2.22 | 0.80-6.12 | 0.12(≥50% vs <50%)[Cox regression] | No  | NR |  |
|  |  |  |  |  |  | PRI≥69% | Cardiac death  | NR | HR=2.42 | 1.00-5.85 | 0.049(≥69% vs <69%)[Cox regression] | No  | NR |  |
|  | Clopidogrel LD 300 or 600mg | VASP PRI | Cardiac death  | Cardiac death  | 9 months  | PRI≥61% | Cardiac death  | NR | HR=4.0 | 1.08-14.8 | 0.037(≥61% vs <61%)[Cox regression] | Yes, variables with p<0.1 in univariate analysis were entered into a stepwise ascending multivariate analysis  | NR |  |
|  | Clopidogrel LD 300 or 600mg | VASP PRI | Total death  | Total death  | 9 months  | PRI≥61% | Total death  | NR | HR=2.71 | 1.18-6.2 | 0.02(≥61% vs <61%)[Cox regression] | No  | NR |  |
|  |  |  |  |  | 9 months  | PRI≥50% | Total death  | NR | HR=1.86 | 0.77-4.51 | 0.17 | No  | NR |  |
|  |  |  |  |  | 9 months  | PRI≥69% | Total death  | NR | HR=1.85 | 0.8-4.24 | 0.15 | No  | NR |  |
| Morel, 2011{Morel, 2011 187 /id}21251579FranceNR | clopidogrel 300-600 mg LD | VASP | Cardiac death | any death with demonstrable cardiovascular cause or anydeath that was not clearly attributable to a noncardiovascularcause | mean 9±2 months | low responders (PRI≥ 61%) | Cardiac death | 14 (8.1%) | HR=3.66 | 1.4-9.53 | P=0.008(low vs normal) [Cox regression] | NO | NR | Primary |
|  |  |  |  |  |  | normal responders (PRI<61%) |  | 6 (2.3%) |  |  |  |  |  |  |
|  | clopidogrel 300-600 mg LD | VASP | Cardiac death | any death with demonstrable cardiovascular cause or anydeath that was not clearly attributable to a noncardiovascularcause | mean 9±2 months | low responders (PRI≥ 61%) | Cardiac death | 14 (8.1%) | HR=11.96 | 1.22-116.82 | P=0.033(low vs normal)[Cox regression] | YES;Killip class III–IV; Drug-eluting stent; PRI ≥61%; CKD | NR | PrimaryPRI>61% is entered twice in the model; could explain the large se |
|  |  |  |  |  | mean 9±2 months | normal responders (PRI<61%) |  | 6 (2.3%) |  |  |  |  |  |  |
|  | clopidogrel 300-600 mg LD | VASP | Cardiac death | any death with demonstrable cardiovascular cause or anydeath that was not clearly attributable to a noncardiovascularcause |  | Quartile 1 (<40.30%) | Cardiac death | 1 (3%) | NR | NR | P=0.023(Q4 vs Q1-3)fishers exact | NO | NR | primary |
|  |  |  |  |  |  | Quartile 2 (40.30%–55.83%) |  | 1 (3.3%) |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 3 (55.84%–70.25%) |  | 5 (15.6%) |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 4 (>70.25%) |  | 7 (24.1%) |  |  |  |  |  |  |
|  | clopidogrel 300-600 mg LD | VASP | all-cause mortality | all-cause mortality | mean 9±2 months | low responders (PRI≥ 61%) | all-cause mortality | 16 (9.2%) | NR | NR | P=0.019(low vs normal)chi square | NO | NR | primary |
|  |  |  |  |  |  | normal responders (PRI<61%) |  | 9 (3.5%) |  |  |  |  |  |  |
|  | clopidogrel 300-600 mg LD | VASP | all-cause mortality | all-cause mortality | mean 9±2 months | Quartile 1 (<40.30%) | all-cause mortality | 1 (3%) | NR | NR | P=0.019(low vs normal)fishers exact | NO | NR | primary |
|  |  |  |  |  |  | Quartile 2 (40.30%–55.83%) |  | 1 (3.3%) |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 3 (55.84%–70.25%) |  | 5 (15.6%) |  |  |  |  |  |  |
|  |  |  |  |  |  | Quartile 4 (>70.25%) |  | 8 (27.6%) |  |  |  |  |  |  |
| Schafer, 2011{Schafer, 2011 11 /id}21655677GermanyNR | Clopidogrel | VASP | cardiac death |  |  | >57%N=40 |  | 1 | OR (calculated)=1.1 | 0-28.6 | P=0.95(>57 vs ≤ 57%)[Fisher's exact] | NR | NR | NR |
|  |  |  |  |  |  | </=57%N=14 |  | 0 | NR | NR | NR | NR | NR | NR |
| Gaglia, 2012{Gaglia, 2011 18244 /id}21919956USANR | LD: 600 mg loading clopidogrel or 75-mg for 5 days MD: Aspirin + clopidogrel 75 mg for 1 month in patients with BMS and 12 months in patients receiving DES | VASP | death | death | 3 days | HPR with PRI>50%n=79 | HPR | 0 | OR (calculated)=3.3 | NR | 0.6(HPR vs NPR)[Fishers exact test] | No | NR |  |
|  |  |  |  |  |  | NPR with PRI>50%n=121 |  | 0 |  |  |  |  |  |  |