

Plasma exosome profile in ST-elevation myocardial infarction patients with and without out-of-hospital cardiac arrest.

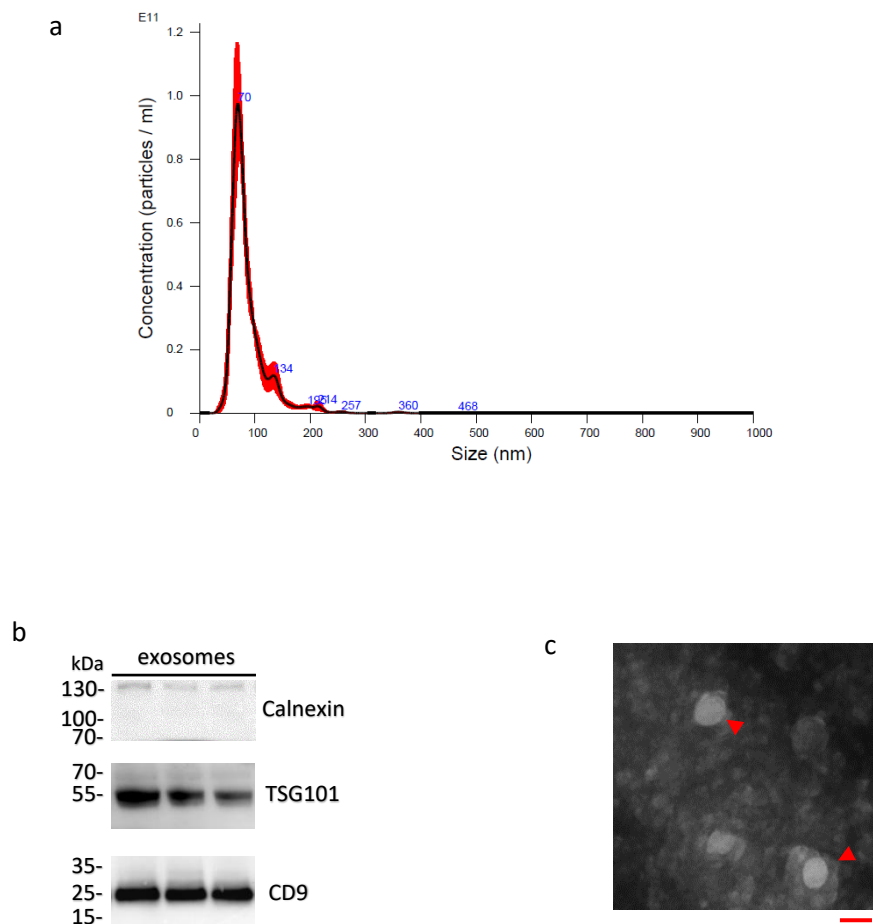


Figure S1: Characterization of extracellular vesicles isolated from plasma of patients. The quality of vesicles isolated from plasma of patients was carefully checked by different techniques, as strongly suggested by guidelines of the International Society of the Extracellular Vesicles (ISEV). (a) Representative NTA profile showing a major peak of abundant vesicles ranging from around 50 nm to 130 nm, thus the expected exosome dimension. (b) Western blot analysis revealed the presence of largely recognized positive exosomal markers (CD9 and TSG101) whereas endoplasmic reticulum-localized protein calnexin was not detected. (c) Representative TEM image confirming the presence of intact vesicles (scale bar:100 nm).

Table S1: Total exosome protein cargo per ml in CCS and uncomplicated STEMI patients

| Protein (A.U./ml) | CCS | STEMI | P value |
|----------------------------|---------------------|---------------------|-------------------|
| GPIIb | 0 (0-77.41) | 210 (97.36-298.3) | <0.0001 |
| VE-Cadherin | 103.1 (44.84-156.1) | 243.3 (177.3-522.6) | <0.0001 |
| Troponin | 295 (235.2-588.7) | 401.4 (267.6-708.9) | 0.322 |
| Ceruloplasmin | 663.8 (474.4-950.2) | 459.8 (342.1-679.3) | 0.016 |
| Fibronectin | 326.2 (236.4-412.8) | 240.6 (171.3-324.7) | 0.036 |
| Transthyretin | 1613 (912.7-2459) | 461 (274.6-884.7) | 0.0004 |
| Galectin-3-binding protein | 30.12 (13.94-79.77) | 24.53 (12.86-40.39) | 0.476 |

A.U.: Arbitrary Unit; GPIIb: Glycoprotein IIb

Table S2: Total exosome protein cargo per ml in uncomplicated STEMI and OHCA-STEMI patients

| Protein (A.U./ml) | STEMI | OHCA-STEMI | P value |
|--------------------------|---------------------|---------------------|-------------------|
| GPIIb | 210 (97.36-298.3) | 573.6 (257.6-1598) | <0.0001 |
| VE-Cadherin | 243.3 (177.3-522.6) | 252.9 (235.1-365.5) | 0.801 |
| Ceruloplasmin | 459.8 (342.1-679.3) | 415.6 (148.2-580.7) | 0.394 |
| Fibronectin | 240.6 (171.3-324.7) | 362.1 (315.3-501.4) | 0.0510 |
| Transthyretin | 461 (274.6-884.7) | 503.1 (326.3-788.1) | >0.999 |
| PLP1 | 167.5 (79.33-303.3) | 352 (239.5-530.5) | 0.009 |

A.U.: Arbitrary Unit; GPIIb: Glycoprotein IIb; PLP1: Myelin proteolipid protein

Table S3: Relation of plasma exosome profile in STEMI and OHCA-STEMI patients

| CCS vs STEMI (overall) | AUC | 95% Confidence Interval | P value |
|-------------------------------|------------|------------------------------------|-------------------|
| concentration | 0.692 | 0.563-0.820 | 0.007 |
| mode | 0.849 | 0.750-0.948 | <0.0001 |
| GPIIb | 0.896 | 0.822-0.970 | <0.0001 |
| VE-Cadherin | 0.876 | 0.778-0.975 | <0.0001 |
| Ceruloplasmin | 0.836 | 0.722-0.950 | <0.0001 |
| Transthyretin | 0.841 | 0.725-0.958 | <0.0001 |
| Fibronectin | 0.647 | 0.492-0.803 | 0.075 |
| STEMI vs OHCA-STEMI | | | |
| concentration | 0.565 | 0.369-0.762 | 0.509 |
| mode | 0.700 | 0.523-0.876 | 0.047 |
| GPIIb | 0.838 | 0.694-0.981 | 0.001 |
| VE-Cadherin | 0.503 | 0.269-0.737 | 0.979 |
| Ceruloplasmin | 0.616 | 0.412-0.820 | 0.280 |
| Transthyretin | 0.603 | 0.386-0.821 | 0.345 |
| Fibronectin | 0.744 | 0.557-0.932 | 0.034 |
| PLP1 | 0.804 | 0.631-0.976 | 0.009 |

GPIIb: Glycoprotein IIb; PLP1: Myelin proteolipid protein