

SUPPLEMENTARY APPENDIX

This appendix has been provided by the authors to give readers additional information about their work.

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1 EXPANDED METHODS

1.1 COVERT-MI centers and principal investigators

| Town | Principal investigators | Institution |
|-------------|-------------------------|---|
| BRON | Pr Nathan MEWTON | Centre d'Investigation Clinique, Inserm 1407, Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |
| ANGERS | Pr Fabrice PRUNIER | Institut MITOVASC, CNRS 6015 INSERM U1083, Université d'Angers, CHU Angers, Service de Cardiologie, 4 rue Larrey, 49033 Angers Cedex |
| POITIERS | Dr Claire BOULETI | Université de Poitiers, CIC Inserm 1402n CHU de Poitiers, 2 Rue de la Milétrie, 86021 Poitiers |
| LYON | Dr Olivier DUBREUIL | Centre Hospitalier Saint-Joseph Saint-Luc, Invasive Cardiology Department, 20 quai Claude Bernard, 69007 LYON |
| MONTPELLIER | Pr François ROUBILLE | PhyMedExp, Université de Montpellier, INSERM, CNRS, Cardiology Department, CHU de Montpellier, France |
| MULHOUSE | Dr Didier BRESSON | University Hospital of Mulhouse, Hôpital Emile Muller, 20, avenue du Dr René Laennec , 68200 MULHOUSE |
| TOURS | Dr Fabrice IVANES | Cardiology department CHRU de Tours & EA4245 T2i Tours University, F-37000, Tours, France |
| TOULOUSE | Pr Meyer ELBAZ | CHU de Rangueil, Interventional Cardiology Department, 1 avenue du Pr Jean Poulhès, 31403 TOULOUSE |
| PARIS | Dr Georgios SIDERIS | Hôpital Lariboisière, Cardiology Department, Assistance Publique-Hôpitaux de Paris, 2 Rue Ambroise Paré, 75010 Paris |

1.2 List of committees

1.2.1 COVERT-MI Steering Committee

| Member | Institution |
|-----------------------|---|
| Dr. Nathan MEWTON | Centre d'Investigation Clinique, Inserm 1407, Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |
| Pr. Michel OVIIZE | Centre d'Investigation Clinique, Inserm 1407, Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |
| Pr. Pierre CROISILLE | CREATIS CNRS 5220 INSERM U1206 Research Lab, Dpt Radiology, Hôpital Nord University Hospital / CHU Saint Etienne, Avenue Albert Raimond, 42270 Saint-Priest en Jarez |
| Pr. Fabrice PRUNIER | Institut MITOVASC, CNRS 6015 INSERM U1083, Université d'Angers, CHU Angers, Service de Cardiologie, 4 rue Larrey, 49033 Angers Cedex |
| Pr. Francois ROUBILLE | PhyMedExp, Université de Montpellier, INSERM, CNRS, Cardiology Department, CHU de Montpellier, France |
| Pr. Denis ANGOULVANT | Cardiology department CHRU de Tours & EA4245 T2i Tours University, F-37000, Tours, France |

1.3 List of Co-Investigators for the COVERT-MI Study

1.3.1 Co Investigators from Angers

Dr. Thomas BENARD

Pr. Alain FURBER

Dr. Wissam ABI-KHALIL

Dr. Stéphane DELEPINE

Dr. Gabriel GARCIA

1.3.2 Co-investigators from Mulhouse

Dr Mihaela CALCAIANU

Dr Tarek EL NAZER

Dr. Bree LAWSON

Dr. Laurent JACQUEMIN

1.3.3 Co-investigators from Montpellier

Dr. Fabien HUET

Pr. Florence LECLERCQ

Dr. Jean-Christophe MACIA

Dr. Delphine DELSENY

Dr. Sylvain AGUILHON

Dr. Valentin DUPASQUIER

1.3.4 Co-investigators from Lyon Saint Luc Saint Joseph

Dr. Thibault PERRET

Dr. Sylvain RANC

Dr. Jean Raymond CAIGNAULT

Dr. Marie PIREL

Dr. Sebastien NINET

Dr. Nils BASILAIS

1.3.5 Co-investigators from Poitiers

Dr. Sebastien LEVESQUE

Dr Alexandre GAMET

Dr. Jean MERGY

Dr. Elisa LARRIEU

Pr. Luc CHRISTIAENS

1.3.6 Co-investigators from Tours

Dr. Carl SEMAAN

1.3.7

1.3.8 COVERT-MI Data Safety Monitoring Board

| Member | Speciality | Institution |
|------------------------|-------------------------|---|
| Dr Fabrice BAUER | Cardiologist | INSERM U1096, medicine and pharmacy UFR, 22, boulevard Gambetta, 76183 Rouen, France; Cardiology, Rouen university hospital, 1, rue de Germont, 76031 Rouen, France |
| Dr Théodora ANGOULVANT | Clinical pharmacologist | Medical Pharmacology department, Bretonneau Hospital, CHRU de Tours, 2 Bd Tonnellé, 37000 TOURS |
| Dr Jean Nicolas DACHER | Radiologist | Radiology, Rouen university hospital, 1, rue de Germont, 76031 Rouen, France; INSERM U1096, medicine and pharmacy UFR, 22, boulevard Gambetta, 76183 Rouen, France |

1.3.9 COVERT-MI Core Lab CMR reading committee

| Member | Speciality | Institution |
|------------------------|------------------|---|
| Pr. Pierre CROISILLE | Radiologist | CREATIS CNRS 5220 INSERM U1206 Research Lab, Dpt Radiology, Hôpital Nord University Hospital / CHU Saint Etienne, Avenue Albert Raimond, 42270 Saint-Priest en Jarez |
| Charles de BOURGUIGNON | Imaging engineer | Centre d'Investigation Clinique, Inserm 1407, Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |

1.3.10 COVERT-MI Core Lab coronarography and electrocardiogram reading committee

| Member | Speciality | Institution |
|--------|------------|-------------|
|--------|------------|-------------|

| | | |
|--------------------|-----------------------------|--|
| Pr. Gilles RIOUFOL | Interventional cardiologist | Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |
| Dr Thomas BOCHATON | Cardiologist | Hôpital Cardiologique Louis Pradel, 28 avenue Doyen Lépine, Université Claude Bernard Lyon 1, Hospices Civils de Lyon, Bron |
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1.4 Inclusion and Exclusion criteria

Inclusion criteria

Age >18 and <80 years

First AMI defined as : new ST segment elevation ≥ 0.2 mV in two contiguous leads or new onset of left bundle branch block

Presenting within 12 hours of chest pain onset

Occlusion of culprit artery with TIMI flow 0-1 prior to PCI

Clinical decision to treat with PCI

Signed informed consent to participate in the trial before any study-related procedure or given oral consent (patient should sign the informed consent form as soon as possible)

Exclusion criteria

Cardiogenic shock

Chronic treatment with Colchicine

Any obvious contraindication to magnetic resonance imaging (claustrophobia, pace maker, defibrillator, history of hypersensitivity to gadoteric acid or to gadolinium contrast agents or to meglumine)

Severe liver or known renal dysfunction¹

Treatment by macrolides or pristinamycin

Lactose intolerance

Swallowing disorders

No health insurance coverage

Patients with any legal protection measure

Patients loss of consciousness or confused

Female currently pregnant or women of childbearing age not using contraception²

¹ Known GFR \leq 30 ml/min

² Oral diagnosis

2 SUPPLEMENTARY TABLES

2.1 Table S1: CMR realization in each group at baseline and 3 months

| CMR studies | Colchicine (N=101) | Placebo (N=91) |
|-------------------------------|-----------------------|-------------------|
| CMR performed at 5 days | 86/101 | 82/91 |
| CMR analyzable at 5 days | 80/101 | 81/91 |
| Delay to initial CMR - days | 5[4;7] | 5[4;7] |
| CMR performed at 3 months | 77/101 (75) | 77/91 (85) |
| CMR analyzable at 3 months | 75/101 | 76/91 |
| Delay to follow-up CMR - days | 94[87; 101] | 96[89; 104] |

2.2 Table S2: Major cardiovascular events reported at 3 months

| | Colchicine (N=101) | Placebo (N=91) | P value |
|---|-----------------------|-------------------|---------|
| Cardiovascular death – no. (%) | 0 (0) | 0(0) | - |
| Congestive heart failure - no.(%) | 6(5.8) | 12(13.0) | 0.09 |
| Worsening of pre-existing heart failure no- (%) | 2(1.9) | 2(2.2) | 1.0 |
| Cardiogenic shock –no. (%)‡ | 2(1.9) | 4(4.3) | 0.42 |
| Myocardial infarction – no. (%) | 3(2.9) | 4(4.3) | 0.71 |
| Unstable angina– no. (%) | 0 | 1(1.1) | 0.47 |
| Stroke– no. (%) | 2(1.9) | 1(1.1) | 1.0 |

| | | | |
|--|----------|--------|------|
| Acute coronary syndrome– no. (%) | 2(1.9) | 0 | 0.50 |
| Cardiac arrest– no. (%) | 3(2.9) | 3(3.3) | 1.0 |
| Ventricular fibrillation– no. (%) | 1(1.0) | 2(2.2) | 0.60 |
| Sustained ventricular tachycardia– no. (%) | 0 | 1(1.1) | 0.47 |
| Acute renal failure– no. (%) | 7(6.8) | 4(4.3) | 0.54 |
| Intraventricular thrombus– no. (%) | 22(21.4) | 9(9.8) | 0.03 |

2.3 Table S3: Serious Adverse Events reported to the sponsor and pharmacovigilance and classified according to System Organ Class

| | Colchicine (N=101) | Placebo (N=91) | All (N=192) | P value |
|---|-------------------------------|---------------------------|------------------------|----------------|
| Serious adverse event (at least one) – no.(%) | 40 (38.8) | 32 (34.8) | - | 0.66 |
| Blood and lymphatic system disorders– no. (%) | 0 | 1 (1.1) | 1 (0.5) | - |
| Cardiac disorders – no. (%) | 31 (30.1) | 23 (25) | 54 (27.7) | - |
| Gastrointestinal disorders– no. (%) | 1 (1.0) | 0 | 1 (0.5) | - |
| General disorders and administration site conditions– no. (%) | 3 (2.9) | 3 (3.3) | 6 (3.1) | - |
| Infections and infestations– no. (%) | 0 | 3 (3.3) | 3 (1.5) | - |
| Injury, poisoning and procedural complications– no. (%) | 1 (1.0) | 1 (1.1) | 2 (1.0) | - |
| Investigations– no. (%) | 0 | 1 (1.1) | 1 (0.5) | - |
| Metabolism and nutrition disorders– no. (%) | 0 | 2 (2.2) | 2 (1.0) | - |
| Neoplasms benign, malignant and unspecified– no. (%) | 1 (1.0) | 0 | 1 (0.5) | - |
| Nervous system disorders– no. (%) | 3 (2.9) | 1 (1.1) | 4 (2.1) | - |
| Renal and urinary disorders– no. (%) | 3 (2.9) | 1 (1.1) | 4 (2.1) | - |
| Reproductive system and breast disorders– no. (%) | 0 | 1 (1.1) | 1 (0.5) | - |
| Respiratory, thoracic and mediastinal disorders– no. (%) | 2 (1.9) | 2 (2.2) | 4 (2.1) | - |
| Surgical and medical procedures– no. (%) | 6 (5.8) | 5 (5.4) | 11 (5.6) | - |
| Vascular disorders– no. (%) | 1 (1.0) | 1 (1.1) | 2 (1.0) | - |