Supplementary Material

**Supplementary table 1.** Main clinical characteristics and detailed medical history of the patient.

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| --- | --- |
| Age | 83 years old |
| Sex | Male |
| Lifestyle |  |
| Smoking | No smoking for 40 years |
| Drinking | Drink a little occasionally |
| Stay up | No |
| Fractiousness | No |
| Past medical history |  |
|  Heart disease | No |
|  Diabetes | No |
|  Hypertension | No |
|  Hyperlipidemia | No |
|  Obesity | No |
|  Renal dysfunction | No |
|  Hypohepatia | No |
|  Asthma | No |
|  Allergic history | No |
|  Angioedema | No |
| Chronic granulomatous disease | No |
| Surgery | Subtotal gastrectomy more than 40 years and cholecystectomy more than 10 years |
| Cardiac symptoms before vaccination | No |
| Noncardiac symptoms before vaccination | No |
| Maintenance medications | No |
| Emotional triggers | No |

**Supplementary table 2.** Myocardial infarction cases following COVID-19 vaccination.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author  | Country  | Vaccine administered  | Age/gender  | Vaccination to symptom interval | Symptom | Medical history  | Diagnosis  | Outcome |
| Barsha et al., 2021  | Bangladesh | Moderna COVID-19 vaccine; 1st dose  | 77/M  | 12 hours  | After 12 hours of vaccination, he developed fever, went unconscious after 36 hours. | DM2, peripheral neuropathy, and chronic obstructive pulmonary disease. | Encephalopathy and NSTEMI | alive  |
| Boivin and Martin, 2021  | USA  | Moderna COVID-19 vaccine; 1st dose  | 96/F  | 1 hour  | Chest discomfort. | Poorly controlled hypertension and a DNR/DNI code status. | MI | alive  |
| Chatterjee et al., 2021  | India  | Covishield vaccine; 1st dose  | 63/M  | 2 days  | Uneasiness, dizziness and excessive sweating. | None. | STEMI | alive  |
| Chiang et al., 2021 | Taiwan, China | ChAdOx1 nCoV-19 (AstraZeneca); 1st dose | 75/F | 8 days | Chest tightness and epigastric pain accompanied by tarry stool for two days. | Chronic renal failure; DM2 and coronary artery disease. | NSTEMI | alive |
| Flower et al., 2021  | UK  | ChAdOx1 nCov-19 vaccine; 1st dose  | 40/M  | 2-8 days  | Transient myalgia and febrile symptoms. | Smoking and gastric ulceration. | MI secondary to VITT | alive  |
| Lee et al., 2021  | Singapore  | Pfizer-BioNTech COVID-19 vaccine; 1st dose | 73/F  | 2 hours  | Palpitations and shortness of breath. | Hypertension. | MI with non obstructive coronary arteries  | N/A  |
| Maadarani et al., 2021  | Kuwait  | COVID vaccine (AZD1222-Oxford University and AstraZeneca); 1st dose | 62/F  | 1.5 hours  | Central chest pain. | DM, hypertension and dyslipidaemia. | STEMI  | alive  |
| Özdemir et al., 2021  | Turkey  | Inactivated CoronaVac (Sinovac Life Sciences, Beijing, China) ; 1st dose | 41/F  | 15 min  | Flushing, palpitation, dyspnea, and chest pain. | None.  | Type 1 KS  | alive  |
| Sung et al., 2021 | USA | COVID-19 vaccine (mRNA-1273); 1st dose | 68/F | < 24 hours | Gradual onset of left shoulder pain within 1 day after vaccination; later progressed to left-sided chest pain. | Smoker; hypertension; hyperlipidemia; prior Coronary Artery Disease. | AMI | alive |
| Sung et al., 2021 | USA | COVID-19 vaccine (mRNA-1273); 1st dose | 42/M | < 24 hours | 4 days of chest and shoulder pain. | Hyperlipidemia. | AMI | alive |
| Tajstra et al., 2021  | Poland  | Pfizer–BioNTech vaccine; 1st dose | 86/M  | 30 min  | Unconscious, with clinical and hemodynamic signs of cardiogenic shock and recurrent bradyar-rhythmias.  | Prostate cancer; paroxysmal atrial fibrillation.  | STEMI  | dead  |
| Allam et al., 2022  | Greece  | BNT162b1 mRNA COVID-19 vaccine (Pfizer, New York); 1st dose | 64/M  | 15 min  | Chills, chest pain, pallor, diaphoresis, and hypotension.  | STEMI and drug-eluting stent was implanted in the proximal LAD.  | Anaphylaxis-induced stent thrombosis, or type III KS | N/A  |
| Baronti et al., 2022  | Italy  | BNT162b2, 1st dose  | 69/M  | 24–48 hours  | Unwitnessed; complained of shivering, thoracic, and upper limbs pain some hours before. | Chronic obstructive pulmonary disease (COPD); DM2; smoking. | MI  | dead |
| Baronti et al., 2022  | Italy  | BNT162b2, 2nd dose  | 58/M  | < 24 hours  | Unwitnessed; complained of thoracic pain < 1 h before. | None. | MI  | dead |
| Baronti et al., 2022  | Italy  | BNT162b2, 1st dose  | 76/M  | 15/20 days  | Unwitnessed. | None.  | MI  | dead |
| Baronti et al., 2022  | Italy  | BNT162b2, 2nd dose  | 68/M  | < 24 hours | Sudden death during cycling, preceded by headache and thoracic pain. | Hypertension.  | MI  | dead |
| Baronti et al., 2022  | Italy  | mRNA1273, 1st dose  | 50/F  | < 24 hours | Unwitnessed. | Cocaine abuse, smoking.  | MI  | dead |
| Fialho et al., 2022  | Portugal  | ChAdOx1 vaccine (AstraZeneca, Cambridge, UK); 1st dose  | 59/M  | 20 min  | He was pale, sweaty, and had a discrete micropapular rash on his chest.  | Rheumatoid arthritis, atrial fibrillation and smoking; acute coronary syndrome after influenza vaccine administration.  | Type 3 KS | alive  |
| Hsu et al., 2022 | Taiwan, China | ChAdOx1 nCoV- 19 vaccine; 1st dose | 33/M | 9 days | 1 day of crescendo chest pain. | Obesity and mild hyperlipidemia. | STEMI | dead |
| Huang et al., 2022  | Taiwan, China  | Astra-Zeneca vaccine; 1st dose  | 60/M  | 1 hour | Chest pain and cold sweat.  | Smoking and hypertension. | STEMI  | alive  |
| Huang et al., 2022  | Taiwan, China  | ChAdOx1 nCoV-19 vaccine, AstraZeneca  | 78/F  | 3 days  | Chest pain and dizziness.  | DM2 and chronic renal failure. | STEMI  | alive  |
| Huang et al., 2022  | Taiwan, China  | COVID-19 vaccination (AstraZeneca)  | 89/M  | 3 days  | Progressive short of breath for 2 days. | Hypertension and DM2. | NSTEMI  | alive  |
| Huang et al., 2022  | Taiwan, China  | COVID-19 vaccination (AstraZeneca)  | 87/F  | 5 days  | Chest pain and progressive shortness of breath for days. | Colon cancer. | STEMI  | alive  |
| Iqbal et al., 2022  | PAK  | Moderna COVID-19 vaccine (mRNA-1273 vaccine) ; 1st dose  | 61/M  | 90 min  | Left arm and jaw pain. | Ischemic heart disease. | NSTEMI  | alive  |
| Kawamura et al., 2022  | Japan  | COVID-19 mRNA vaccine (Pfizer-BioNTech vaccine) ; 3rd dose | 76/F  | 19 hour | Chest pain. | Hypertension, dyslipidemia, and bronchial asthma. She was allergic to Japanese cedar, cypress, enicillin, and non-steroid anti-inflammatory drugs.  | STEMI  | alive  |
| Kurozumi et al., 2022  | Japan  | Pfizer-BioNTech COVID-19 vaccine; 2nd dose | 70/F  | 15 min  | Nausea and chest pain. | Hypertension, dyslipidemia, and diabetes mellitus. | AMI | alive  |
| Panthong et al., 2022  | Thailand  | CoronaVac COVID-19Vaccine; 2nd dose | 48/M  | 18 hour | A 30-min history of worsening nonradiated retrosternal chest pressure at rest. | He reported similar pain with less severity over the past 4 weeks since he received the first dose of the same vaccine.  | NSTEMI  | alive  |
| Panthong et al., 2022  | Thailand  | CoronaVac vaccine; 1st dose | 50/M  | 12 hour | An acute onset of chest discomfort at rest. | LAD artery and RCA stent lacement 4 years ago.  | NSTEMI  | alive  |
| Şancı et al., 2022 | Turkey | COVID-19 vaccine (BNT162b2, Pfizer-BioNTech); 1st dose | 22/F | 15 min | Palpitations and uneasiness of the chest. | Had previous egg and tomato allergy and no known prior drug allergies. | Type 1 KS | alive |
| This paper  | China  | Inactivated COVID-19 vaccine (CoronaVac, 202106061Z, Sinovac Life Sciences, Beijing, China) ; 1st dose | 83/M  | 10 min  | Dizziness, fatigue, cold sweat and transient loss of consciousness 10-min after the 1st dose of inactivated COVID-19 vaccine. Chest tightness, diarrhea and a lowest blood pressure the following day. | Subtotal gastrectomy and cholecystectomy. | AMI  | alive  |

**Abbreviations:** MI, myocardial infarction; AMI, acute myocardial infarction; DM2, Type 2 diabetes mellitus; NSTEMI, non-ST segment elevation myocardial infarction; STEMI, ST elevation myocardial infarction; VITT, vaccine- induced immune thrombocytopaenia and thrombosis; KS, Kounis syndrome; M, male; F, female; min: minutes.