

SUPPLEMENTARY DATA

SUPPLEMENTARY DATA - 1

The International Society for Cellular Therapy (ISCT) established unified and minimal criteria to define MSCs in 2006.

Summary of criteria to identify MSC:

1	Adherence to plastic in standard culture conditions	
2	Phenotype Positive (≥95%)	Negative (≤ 2%+)
	CD105	CD45
	CD73	CD34
	CD90	CD14 or CD11b
		CD79a or CD19
		HLA-DR
3	In vitro differentiation: osteoblasts, adipocytes, chondroblasts (demonstrated by staining of in vitro cell culture)	

SUPPLEMENTARY DATA - 2

Supplementary Case 1: 61 year old man with a history of metastatic lung cancer was admitted to hospital with a dry cough, and shortness of breath complaints that started three days ago. His thorax CT scan revealed bilateral ground-glass opacities, his nasopharyngeal swab was obtained for COVID-19, and PCR turned out positive. He admitted to ICU after a two-day follow up in the COVID-19 ward due to severe hypoxemia despite high flow oxygen via HFNC. He was intubated, and mechanically ventilated in ICU. Elevated D-dimer, LDH, ferritin levels, and lymphopenia were recorded. On the 3rd day of ICU admission, he became hemodynamically unstable, his procalcitonin level increased, and he was diagnosed with septic shock. He died on the 7th day of ICU admission.

Supplementary Case 2: 72 year old woman presented with shortness of breath to the emergency department. She had a history of status asthmaticus, and diabetes mellitus. Thorax CT scan was compatible with viral pneumonia, and a nasopharyngeal swab test was positive. She was intubated and transferred to ICU. Upon admission to ICU, with severe hypoxemia (PaO₂/ FiO₂: 90), recruitment maneuver was applied, and she was put on prone position for 16 hours. A prolonged prone position was applied on the consecutive three days. On the 12th day of ICU stay, a weaning trial was implanted. She failed the weaning trial because of a heavy mucus plug that caused left-sided total lung atelectasis. Bronchoscopy was performed, and bronchoalveolar lavage culture was obtained which revealed P. aeruginosa growth. Antibiotic was initiated. She had undergone percutaneous tracheostomy due to a prolonged mechanical ventilator dependency. She is still on mechanical ventilation, in ICU on the 41st day.

Supplementary Case 3: 71 year old woman admitted to ICU with high fever and cough complaints persisting for one

week. She had diabetes mellitus, and hypertension that were both controlled with treatment. Her thorax CT scan revealed bilateral ground-glass opacities, the nasopharyngeal swab was positive. Her sPO₂ was 80% under 15/L of oxygen via non-breathing mask, she was intubated, and ventilated. Her laboratory tests revealed lymphopenia, normal procalcitonin level, and elevated D-dimer, ferritin, and fibrinogen levels. On the 5th day of ICU, procalcitonin level increased accompanied by an increase in neutrophil account. Her blood, tracheal aspirate and, urine cultures were obtained, and she was put on empirical antibiotics. She became hemodynamically unstable, diagnosed with septic shock, and vasopressors were initiated. She had sepsis-induced acute kidney injury that required continuous venovenous hemodiafiltration (CVVHDF). The vasopressors tapered and CVVHDF stopped on day 12th. She experienced two weaning failures during the ICU stay after recovering from septic shock. On the 20th day of ICU stay, her EKG showed ST elevation, and a high blood troponin and CK-MB levels, diagnosed as ST elevated myocardial infarction. Before transfer to the Cath-lab, cardiac arrest occurred, and she did not respond to cardiopulmonary resuscitation.