

## **DISSEMINATED INTRAVASCULAR COAGULATION SYNDROME IN RATS WITH INDUCED PLEURITIS**

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Reaction of an organism to the emerging factor in damaging the tissue or organ structure is manifested inflammation, which is the expression of specific, focused, intense response to biochemical, haematological and immune response. Local inflammatory changes are also the cause of hemolysis of erythrocytes, aggregation and adhesion of platelets to the capillary endothelial cells, causing activation of disseminated intravascular coagulation (DIC). DIC is a serious disorder in which the proteins that control blood clotting become abnormally active. This leads to damage and failure of many vital organs, whose circulation is blocked by microclots. Disseminated intravascular coagulation of blood within the brain causing a generalized dysfunction of the cerebral cortex and brain stem. Impaired consciousness and coma are the symptoms of this disorder. Thrombosis and bleeding in the lungs are the cause of hypoxia and acute respiratory failure. The diagnosis of DIC is based mainly on clinical observations and laboratory diagnosis. However, the clinical and laboratory diagnosis of DIC may be difficult. Most tests focus on the consumption of coagulation factors or platelet, whereas molecular markers that are more sensitive for coagulation activation are usually insufficiently specific and are often not available in most settings for daily clinical care. Several diagnostic criteria for DIC have been established by Japanese Ministry Health and Welfare (JMHW) the International Society on Thrombosis and Haemostasis (ISTH) and The Japanese Association for Acute Medicine (JAAM) . A scoring system introduced for the diagnosis of overt DIC by the ISTH in 2001 give score of 5 or greater indicates a diagnosis of overt DIC. The components of the scoring system include a decreased platelet count, prolongation of prothrombin time (PT), increased fibrin-related markers (FRMs), and decreased fibrynogen. FRMs include D-dimer (DD), fibrin degradation product (FDP), and fibrin monomer (FM).