

1 TRAUMA

Tissue Damage and Haemorrhagic Shock

2

SYSTEMIC CIRCULATION

Alarmins/DAMPs
Cytokines - IL-6, TNF α , Lymph

CAPILLARY



TLRs

3

CARDIOMYOCYTE INNATE IMMUNE SYSTEM RECOGNITION

4

CARDIOMYOCYTE GENE EXPRESSION & UP REGULATION

NFKB, IL-6, TNF α

5

MYOCARDIAL LEUKOCYTE INFILTRATION

Adhesion molecules, Chemokines
CINC-1, CINC-3, ICAM-1, MIP-2

CARDIOMYOCYTE

6

OXIDATIVE & NITRATIVE ENZYME ACTIVITY

MPO, NADPH, iNOS form superoxide and
Nitritative stress, free radical species

7

PROTEIN DAMAGE & APOPTOSIS

Caspase, Bax

8 CARDIAC DYSFUNCTION

Systolic and Diastolic myocardial dysfunction. Reduced Cardiac Output. Impaired tissue perfusion.