

Treatment of sepsis with chloroquine improves kidney histology

Chloroquine (50 mg/kg p.o.) was administered either 3 hr prior to or 6 hr after CLP. Kidneys were fixed in formalin 24 hr after sham or CLP surgery, embedded, and sectioned (4 microns) before staining with periodic acid-Schiff staining. Cortex is shown at 400X magnification.



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Chloroquine treatment improves sepsis-induced splenic apoptosis

Chloroquine (50 mg/kg p.o.) was administered either 3 hr prior to or 6 hr after CLP. Spleens were fixed in formalin 24 hr after sham or CLP surgery, embedded, and sectioned (4 microns) before staining for active caspase3 and counterstained with hematoxylin. White pulp is shown at 400X magnification.



Treatment of sepsis with chloroquine decreases blood bacterial count

Chloroquine (50 mg/kg p.o.) was administered either 3 hr prior to or 6 hr after CLP. H154 and A151 sODN (3.5 mg/kg i.p.) were administered at 1 hr before CLP. Peritoneal fluid or blood was analyzed for the presence of bacteria by dilution plating onto blood agar (Remel, Lenexa KS) and colony counting after 24 hr incubation at 37° C. Bacterial counts were log transformed. (* p < 0.05 vs. control)



TLR9 deficiency improves sepsis-induced splenic apoptosis

CLP or sham surgery was performed on wild-type or TLR9^{-/-} mice. Spleens were fixed in formalin 24 hr after sham or CLP surgery, embedded, and sectioned (4 microns) before staining for active caspase3 and counterstained with hematoxylin. White pulp is shown at 400X magnification.



TLR9 antagonist improves sepsis-induced splenic apoptosis

The TLR9 inhibitory phosphorothioate oligodeoxynucleotide H154 (3 mg/kg i.p.), the control phosphorothioate oligodeoxynucleotide A151, or saline vehicle was administered immediately after CLP. Spleens were fixed in formalin 24 hr after sham or CLP surgery, embedded, and sectioned (4 microns) before staining for active caspase3 and counterstained with hematoxylin. White pulp is shown at 400X magnification.



Treatment of sepsis with chloroquine decreases splenic TLR9 expression

Chloroquine (50 mg/kg p.o.) was administered either 3 hr prior to or 6 hr after CLP. H154 and A151 sODN (3.5 mg/kg i.p.) were administered at 1 hr before CLP. 24 hr after CLP spleens were homogenized in T-PER (Pierce, Rockford IL) supplemented with Complete Mini protease inhibitor cocktail (Roche, Indianapolis IN), followed by sonication. After BCA protein assay (Pierce) 150 ug was solubilized by 2X Laemmli buffer (Biorad, Hercules CA), separated by SDS-PAGE, and TLR9 was detected by western blot (upper panel). Densitometry was used to quantitate bands at two locations per lane and averaged, except the left side of lane 5 (lower panel). (* p < 0.05 vs. control)