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Effect of S-Nitrosoglutathione (GSNO) added to the University of Wisconsin Solution (UW): Mast cell degranulation during normothermic reperfusion

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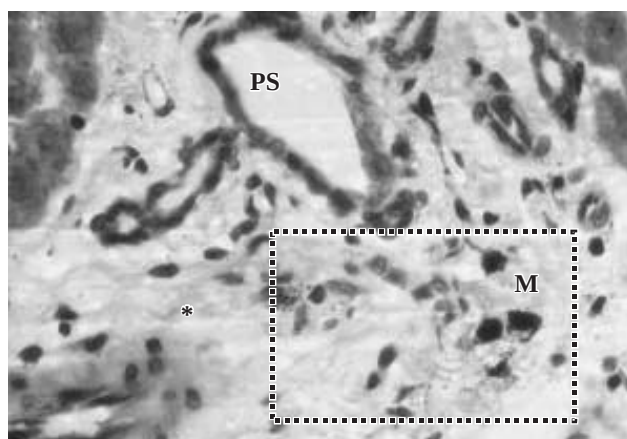


Figure 1A.

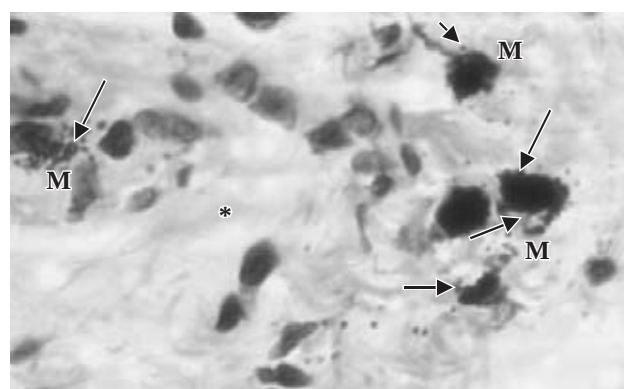


Figure 1B.

Morphology of portal mast cells in rat liver after cold preservation/normothermic reperfusion: Rat livers were cold preserved (0°C) during 48 h in UW solution with the addition of 500 μ M GSNO to improve liver preservation. GSNO is a S-nitrosothiol, which releases the vasodilator Nitric Oxide that acts on hepatic microvascular system protecting the liver from preservation/reperfusion injuries. Apart from hepatocytes and non-parenchymal cells, the resident cells, such as mast cells, appear to be involved in the pathogenesis of these injuries. Any increment in oxygen-free radicals induces mast cell degranulation and these alterations promote granulocyte infiltration during graft reperfusion *in vivo*.

Rat liver slices were stained with Giemsa of Lennet. Mast cells (M) were observed granulated and incremented in number and size in portal spaces (PS) that showed interstitial edema (*), after normothermic reperfusion (Figure A).

Figure B showed a magnification of the area delimited with the rectangle in Figure A. In this picture, interstitial edema (*) and red granules of secretion around mast cells (arrows) can be seen.

Damages on mast cells were avoided replacing the concentration of 500 μ M GSNO for one of 100 μ M.

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