

Felipe Dal-Pizzol¹, Mervyn Singer²

How do you prefer your resuscitation solution? Do you want a little bit more salt?

Como você prefere sua solução de ressuscitação? Quer um pouco mais de sal?

1. Experimental Pathophysiology Laboratory and National Institute of Medical Translational Science and Technology, Health Sciences Postgraduate Program, Health Sciences Unit, Universidade do Extremo Sul Catarinense - Criciúma (SC), Brazil.

2. Bloomsbury Institute of Intensive Care Medicine, University College London - UCL - London, England.

In this issue of the Revista Brasileira de Terapia Intensiva, Rios et al.⁽¹⁾ demonstrate the effects of volume replacement with hypertonic saline solution (HSS) on hepatic cytokine production and expression of heat-shock proteins and apoptotic proteins in an animal model of acute pancreatitis. HSS down-regulated liver cytokine production and HSP60 expression in a more robust manner when compared to normal saline solution.

More than 30 years have passed since the first description of HSS as a resuscitation solution in hemorrhagic shock.⁽²⁾ HSS can exert its beneficial effects by mobilizing fluids from intracellular to extracellular compartments and by improving myocardial contractility and microcirculatory flow.⁽³⁾ In addition, it may have immunomodulatory effects.⁽³⁾ Thus, the original rationale based on its osmotic effect that enables small volume resuscitation in hypovolemic shock⁽²⁾ and decreases brain edema after traumatic brain injury⁽⁴⁾ may be too simplistic. The results presented by Rios et al.⁽¹⁾ add to previous demonstrations of benefit from HSS on several different aspects of inflammation and organ function in pre-clinical models of systemic inflammatory response syndrome (SIRS) and sepsis.⁽³⁾ However, human trials have failed to provide convincing evidence of efficacy.⁽⁵⁾ Clearly this potential needs to be examined further, particularly as it is cheap and widely available, but we should wait until more robust clinical data are available.

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Corresponding author:

Felipe Dal-Pizzol

Laboratório de Fisiopatologia Experimental and Instituto Nacional de Ciência e Tecnologia Translacional em Medicina

Programa de Pós-Graduação em Ciências da Saúde
Unidade Acadêmica de Ciências da Saúde
Universidade do Extremo Sul Catarinense
Avenida Universitária, 1105

Zip Code: 88806-000 - Criciúma (SC), Brazil
E-mail: piz@unesc.net

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