

Title of abstract REGENERATIVE RESPONSE OF HEPATOCELLULAR TRANSPLANTS PLACED IN THE SPLEEN

Author(s) V. Portugal, I. García-Alonso, P. Barceló, J. Bilbao, I. López de Tejada,  
J. Méndez

Institution(s) Fac. of Medicine, Univ. of The Basque Country. / Hospital de Basurto

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Note the instructions (page 10)

# **REGENERATIVE RESPONSE OF HEPATOCELLULAR TRANSPLANTS PLACED IN THE SPLEEN.**

The functionalism of hepatocytes inoculated into the spleen has already been assessed. This work was designed to check the ability of these cells to response to regenerative stimuli.

**MATERIAL and METHODS.** Syngeneic female Fisher rats were used as receptors and donors (200 g). Hepatocytes were isolated by continuous perfusion with collagenase (0.5%) and the survival rate (94 +/- 2%) was assessed by means of the Tripán Blue exclusion test. 22 million of hepatocytes suspended in 1 cc of EMEN's solution were inoculated into the spleen. 70% hepatectomy was performed 24 h after inoculation. Daily doses of CsA (20 mg/kg i.p.) were administered from the day before transplantation. Four groups of seven animals have been considered: (I) Control, (II) 70% Hepatectomy, (III) CsA, (IV) 70% Hepatectomy + CsA. Animals were sacrificed 48 h. after inoculation, and hepatocytes' DNA content was measured by means of a microcytoespectrophotometric method. Mean percentage of regenerating hepatocytes (MPRH) was then assessed.

**RESULTS.** Hepatic MPRH was: (I) 7.3%, (II) 33.95%, (III) 20.79%, (IV) 29.77%. Splenic MPRH was: (I) 5.4%, (II) 37.44%, (III) 22.64%, (IV) 26.63%. Liver hepatocytes of animals with heterotopic implants showed a regenerative response similar to control livers: both 70% hepatectomy and CsA (alone or combined) increased MPRH ( $p < 0.05$ ), though the former induced the strongest response ( $p < 0.05$  vs CsA). There were not significant differences between MPRH of hepatic and splenic hepatocytes.

**CONCLUSIONS.** Inoculation of hepatocytes into the spleen induces a low regenerative response both in hepatic and splenic hepatocytes. Hepatocytes inoculated into spleen respond to regenerative stimuli (70% hepatectomy and CsA) similarly to hepatic hepatocytes.

P 035