Splenic autoimplantation in omentum and stomach, hematoimmunological follow-up and B-cell repertoire in the graft

Álvarez, Fernando Andrés , Colombres, Gustavo Adolfo, Viqueira, Alejandro , Maldonado, Jorge Eduardo, Alvarellos, Emilio, Sambuelli, Rubén Horacio and Alvarellos, Teresita (2010) Splenic autoimplantation in omentum and stomach, hematoimmunological follow-up and B-cell repertoire in the graft. Acta Gastroenterologica Latinoamericana, 40 (4). pp. 339-346. ISSN 03009033

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## Resumen

Introduction. Splenic autoimplantation appears to be the only alternative to preserve splenic tissue after splenectomy; however, its relevance is still controversial. We intended to study splenic autoimplantation in the greater omentum and stomach wall of rabbits and analyze its hematoimmunological performance and the preservation of original structures. Methods. New Zealand rabbits were divided in two groups: autoimplanted (A) (n=13) and splenectomized (S) (n=4). The animals of group A underwent autoimplantation of splenic fragments in the greater omentum and gastric wall. Both groups were evaluated by hemocytological tests, scintigraphy, immunoglobulin and C3 dosages, before the surgery and 2 and 4 months afterwards. After 4 months, the grafts were removed and histological examination and gen rearrangement of B-lymphocytes receptors by polymerase chain reaction (PCR) were performed to assess the cellular diversity of clones. Results. The histological analysis demonstrated the presence of splenic tissue in 10 of the 13 cases (77%) with evident size reduction. The gastric location did not develop complications and demonstrated higher morphological correspondence to the autoimplanted tissue. Both groups showed significant decrease of IgM and increase of C3, without considerable differences between both of them during follow up. From the 8 grafts studied with PCR, 3 cases presented polyclonality and 5 oligoclonality. Conclusions. The revascularized grafts evidenced splenic regenerating tissue, probably associated to the oligoclonality detected by PCR. Consequently, we consider that autoimplantation is a reasonable alternative for splenectomized patients, even though the stomach placement and the high frequency of oligoclonality justify further investigation.

Tipo de Artículo documento:

Palabras clave: Oligoclonality. PCR. Rabbits. Splenic autoimplantation.

Stomach.

Temas: R Medicina > R Medicina (General)

Unidad Universidad Católica de Córdoba > Facultad de Ciencias de

académica: la Salud