



EDITORIAL

About Primary Biliary Cirrhosis

Acerca de la cirrosis biliar primaria

In the present review Montano-Loza and Mason published in this issue, analyzed the main clinical, histological, biochemical characteristics of primary biliary cirrhosis (PBC). In addition, those researchers point out the genetic and environmental factors associated with the development of PBC in order to explain if there is or not any association of microbial etiology in PBC.

In fact, some studies have suggested a microbial etiology for PBC, based on the premise of molecular similarity between the human 2-OADC-E2 and the corresponding bacterial proteins.¹ In addition, a viral association in PBC has also been suggested based on viral particles identified in the bile duct epithelial cells (BECs) from patients with PBC by electron microscopy, a retroviral sequence cloned from BECs and a proviral genome of a beta retrovirus cloned from the lymph node from patients with PBC.^{2,3}

However, since PBC is considered an autoimmune disease, it is important to mention that a hypothesis on the role of microbial etiology (parasite, bacteria, yeast or virus) suggest that an infectious agent displays epitopes immunologically resembling host determinants. Also, due to the minor antigenic differences between the two, the pathogen's epitope is able to induce an immune response that breaks tolerance to the host epitope. The cross-reactive T or B cell is then able to induce a pathogenic autoimmune response that leads to disease.⁴

On the other hand, innate immunity is suspected to play a key role in various forms of autoimmunity, but the precise mechanisms involved in activating and propagating autoreactive T and B cells have remained obscure. One frequent cause of innate immune activation is represented by overt or unrecognized bacterial or viral infections, but revealing microbial involvement and

understanding the cellular and molecular mechanisms leading to autoimmunity generally remain a challenge.⁵

In summary, Montano-Loza and Mason have nicely reviewed the main factors involved in the etiopathogenesis of PBC and we concluded that although the etiology of PBC remains unknown, the infectious agents need to be carefully reevaluated in order to prove their role in the etiopathogenesis of PBC.

References

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**José de Jesús Román-Sandoval, Dr. Misael Uribe,
Nahum Méndez-Sánchez**

Liver Research Unit. Medica Sur Clinic and Foundation.
Mexico City, Mexico

Correspondence: Nahum Méndez-Sánchez, MD, PhD.
Puente de Piedra 150, Col. Toriello Guerra, Tlalpan
14050, Mexico City, Mexico. Phone: (+525) 55424 7200
Ext. 4215; Fax: (+525) 55 666- 4031.
E-mail: nmendez@medicasur.org.mx