Immune thrombocytopenic purpura and infections

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Dear Sir,

The interesting paper by Lai et al. reports that immune thrombocytopenic purpura (ITP) can be due to cross-reacting antibodies between human immunodeficiency virus (HIV) and platelet glycoproteins [1]. The pathogenic mechanism of ITP consists of phagocytosis of platelets by cells of the reticuloendothelial system; these cells recognize and capture platelets owing to the presence on their surface of autoantibodies (autoAb). These autoAb can be elicited by several infections, such as those caused by HIV and hepatitis C virus (HCV), through mechanisms of antigenic mimicry, as clearly indicated by Lai et al. [1]. The ability to recognize HIV and HCV infections is certainly of high impact as both diseases can be deadly if not cured, but they are now treatable with antivirals. However, from an epidemiological standpoint, the infection by *Helicobacter pylori* is enormously more prevalent; this pathogen has been implicated in the pathogenesis of several autoimmune diseases, the first one identified being autoimmune gastritis; the bacterium stimulates the synthesis of anti-gastric epithelial autoantibodies through a process of molecular mimicry with H,K-ATPase [2]. Another clearly identified disease based on the same mechanism, is autoimmune thyroiditis; in this case anti-peroxidase antibodies raised against the bacterial peptide also cross-react with the human antigen [3]. The cure of *H. pylori* infection results in

restoration of platelet numbers in the majority of cases [4, 5]. In conclusion, we would like to remind the readers that this bacterial infection may be one of the most frequent cause or concomitant cause of ITP, and that the eradication of these organisms is followed by the cure of such disorder.

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Compliance with ethical standards

Conflict of interest The Authors declare that they have no conflict of interest.

Statement of human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed consent Informed consent was obtained from all individual participants included in the study.

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