Detection of hepatitis G virus envelope protein E2 antibody in blood donors

I enjoyed the article by Ramezani et al., "Detection of hepatitis G virus envelope protein E2 antibody in blood donors," published in a recent issue of the International Journal of Infectious Diseases, and would like to make some comments on this article.

Firstly, the authors evaluated hepatitis G virus (HGV) antibody and ribonucleic acid (RNA) among 478 blood donors in Tabriz City, but then went on to reflect their results onto the whole population of Iranian blood donors. Iran is a country with a population of more than 70,000,000, and a survey in the northwest of the country, on 478 samples, cannot be representative of the HGV status for all Iranian blood donors. The pattern of prevalence of hepatitis G may well be different in the various other regions of Iran. For example, Gharebaghian et al. showed the hepatitis G prevalence in Tehran, the capital of Iran, to be 4.2% among 330 blood donors, a higher prevalence value than that determined by Ramezani et al. The current prevalence of virus in other parts of the country remains to be elucidated, and then a meta-analysis will determine the countrywide pattern.

Secondly, in liver function tests, the mean levels of ALT and AST were cited for both groups — those with positive results for HGV and those with negative results for HGV; however, no reference ranges were given, which makes the description and interpretation of the results somehow confusing.

Conflict of interest: No conflict of interest to declare.

References


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Reply to the Letter to the Editor

Dear Dr Cameron

Thank you for sending me the letter from H. Mansouritorghabeh concerning my article entitled "Detection of hepatitis G virus envelope protein E2 antibody in blood donors," published in the International Journal of Infectious Diseases.

In reply to the first point made, because Tabriz City is not well known to scholars around the world, we used ‘Iran’ in the ‘Aims’ section to give readers an immediate understanding of the place of study; however in the ‘Patients and methods’ section it was explained that the study took place in Tabriz City. This policy is common in many papers published in international journals.1–5 Also, we did not reflect our results onto all Iranian blood donors. As mentioned in the ‘Discussion’ section, “We have shown a low frequency of
anti-E2 (1%) in blood donors accepted at the Tabriz blood transfusion center”.

In reply to the second point, the reference ranges of ALT and AST are cited in referral clinical laboratory texts and are available to all scholars.

Conflict of interest: No conflict of interest to declare.

References


Splenic puncture: diagnostic accuracy and safety in infectious diseases

To our knowledge, Widal, late in the 19th century, was the first to puncture the spleen for the diagnosis of typhoid fever. Since then, splenic aspiration has been widely used around the Mediterranean Basin and in Asia in the diagnosis of leishmaniasis, trypanosomiasis, and malaria. We present herein a brief review of the use of this technique with regard to its utility and safety in the diagnosis of infectious diseases, and share our experiences of its use in the diagnosis of brucellosis.

Cysts, abscesses, and a variety of infectious and granulomatous processes involving the spleen can be diagnosed by puncture. Although various complications of this technique, including pneumothorax, left shoulder pain, and hemoptysis, have been reported, uncontrolled bleeding resulting in death or requiring a splenectomy is rare. In over 1000 aspirations, Soderstrom experienced no complications. Kumar et al., in their study of 48 cases, concluded that splenic aspiration is a safe and very useful procedure in the diagnosis of parasitic and infectious diseases. The experiences of Lal et al. and Venkataralu et al. have also demonstrated the excellent diagnostic accuracy and safety of splenic aspiration in both neoplastic and infectious splenic disorders. In the latter study, acid-fast bacilli were demonstrated in 10 patients, aspergillus in one, and one was diagnosed as having histoplasmosis.

The diagnostic yield has been found to be higher for splenic aspiration than for other specimens in visceral leishmaniasis (as high as 98% vs. <90%, respectively). Recently, splenic aspiration has been used for the diagnosis of splenic abscess as a complication of enteric fever by isolating Salmonella typhi in a patient whose cultures of blood, urine, and stool were sterile. Also, the recent use of computed tomography (CT)-guided percutaneous aspiration for the diagnosis of splenic abscess has shown encouraging results.

To-date, no attempts have been made to puncture the spleen in a living subject for the diagnosis of brucellosis. Hence, we conducted a comparative evaluation of blood, bone marrow, splenic (ultrasound-guided), liver, and lymph node aspirate cultures in 13 patients who were seropositive for brucellosis (standard tube agglutination test 1:160), and who had clinical features suggestive of brucellosis along with an epidemiological indication. The specimens were cultured simultaneously using Castaneda’s biphasic media consisting of brain heart infusion agar and broth or tryptic casey agar and broth, and were processed according to standard methods.

It was found that bone marrow specimens were sterile in 46% (6/13) of cases when bacteremia was present, but Brucella melitensis was detected in the splenic aspirate in these six bacteremic cases. In one patient for whom the blood was sterile, the splenic aspirate yielded B. melitensis. These results indicate that the brucellae are not uniformly distributed in the bone marrow and also that adopting the practice of culturing splenic aspirates may enhance bacterial isolation and aid in the establishment of the diagnosis of brucellosis. No evidence of morbidity, such as hemorrhage, was encountered.

To make this technique safe, it is wise initially to confine the performance of the procedure to a few hands until they become more familiar with it. In our experience, with a small bore needle, splenic aspiration is safe and can be a...