Seroprevalence of Australian antigen (HbsAg) among blood donors in the local population at standalone blood centre

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Introduction:

Hepatitis B virus (HBV) causes a silent killer disease of the liver with many carriers not aware of their clinical status; therefore, they act as a potential source of infection to others. HBV is highly infectious and can be transmitted by both percutaneous routes and by blood transfusion. Laboratory diagnosis of HBV infection is made by detecting Hepatitis B virus surface antigen (HBsAg), the earliest serological marker of active HBV infection (acute and chronic). Hepatitis B virus (HBV) Infection is one of the leading causes of death worldwide. The most important marker for HBV infection is HBsAg. In the case of the diagnosis of an infectious disease, discordant results may have serious consequences for the patients as it causes unnecessary mental stress and tension. For The proper diagnosis of infection, disease management, prevention, and as well as identification of appropriate Test kits are necessary.

Objectives:

To determine the seroprevalence of HBsAg among blood donors in a stand Alone Blood Centre in Ahmedabad, Gujarat.

Method:

The study was conducted on apparently healthy blood donors over 3 years from January 2021 to December 2023 at the Blood Centre to assess the prevalence of hepatitis B virus infection. A total of 90,754 blood donors were included In this study. In this study, For HBsAg ELISA test was used. For initial reactive donors. The second time, HBsAg Hepacard, a Rapid kit, was used to confirm true reactivity.

Result:

Out of 90,754 donors, 85,959 (94.81%) were males and 4,795 (5.17%) were females. Out of these blood units, 526 (0.57%) were discarded, and among them, 276 (0.30%) were HBsAg reactive. The Seroprevalence of HBsAg was found to be 0.30%.

Conclusion:

Blood Donors are often found to be reactive to hepatitis B surface antigen and others. To reduce this Seroprevalence, more sensitive screening assays and appropriate donor selection are must.

Keywords:

Seroprevalence, Hepatitis B surface antigen, Blood donors.