新乡地区健康检查者血清中 ALT 活力的参考值及 HBsAg 携带率的调查

Investigation on Reference Value of ALT and Carrying Rate of HBsAg among

王淑娟, 张敏

WANG Shu-juan, ZHANG Min

摘要 目的 建立新乡地区健康人群血清丙氨酸氨基转移酶（ALT）活力的参考值和参考区间，并调查该地区乙型肝炎病毒表面抗原（HBsAg）的携带率。方法 以13866名（年龄6～65岁）健康人肝、胆、心、肾等脏器及组织病变的健康检查者，选取速率法经过有效性验证的检测系统进行血清中 ALT 活力测定，HBsAg 采用酶联免疫吸附法测定。对 ALT 结果的频数分布进行正态性检验，性别和结果差异的比较采用 t 检验。符合正态性分布时，用平均数 ± 1.96 s 作为参考区间；不符合正态性分布时，取 2.5% - 97.5% 百分位数为参考区间。HBsAg 携带率用百分比表示。结果 ALT 结果的频数分布为非正态性分布，男女之间结果差异有统计学意义（t = 8.362, P < 0.000）。按照 2.5% - 97.5% 百分位数确定的参考区间为：男 4.9 - 43.0 U/L, 女 5.0 - 44.3 U/L, HBsAg 携带率为 6.29%。结论 该结果 ALT 活力的参考区间及 HBsAg 携带率与以往报道的有一致性。应该建立不同地区 ALT 活力测定的参考值和参考区间。

关键词 血清丙氨酸氨基转移酶; 参考值; 乙型肝炎病毒表面抗原; 携带率

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Authors WANG Shu-juan, ZHANG Min (Xinxian First People’s Hospital, Henan, 453000, China)

Abstract [Objective] To establish the reference value and reference range of alanine aminotransferase (ALT), and survey the carrying rate of hepatitis B surface antigen (HBsAg) in Xinxiang area. [Methods] Totally 13866 normal people aged 6 - 65 without distinct liver, kidney, heart, muscle and tissue lesions were selected. The ALT activity was measured by speed method which had been validated. HBsAg was tested by ELISA. Normal test by frequent distribution was performed on ALT results, and results distinction between genders was examined by t test. Mean value ± 1.96 s was adopted as reference range, if the result was consistent with normal distribution; if not consistent with normal distribution, 2.5% - 97.5% percentile was adopted as reference. HBsAg carrier rate was expressed in terms of a percentage. [Results] The frequency distribution of ALT results was not normal distribution. The difference of result between genders was significant (t = 8.362, P < 0.000). The reference ranges were male 4.9 - 43.0 U/L, female 5.0 - 44.3 U/L based on 2.5% - 97.5% percentile. HBsAg carrying rate was 6.29%. [Conclusion] The reference range of ALT activity and HBsAg carrying rate is different from those of former report. It is necessary to establish the reference value and reference range of ALT activity.

Key words ALT; The reference value; HBsAg; Carrying rate