热应激对鸡免疫性能的影响

Effects of Heat Stress on the Immune of Laying Hens

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中文摘要：

以绵羊红细胞(SRBC)作为抗原,根据鸡对其产生抗体水平的高低,分为高抗体(HA)组和低抗体(LA)组鸡,然后以高温作为激源,研究其对两组鸡免疫性能的影响。结果表明:1)在未受应激时,HA组和LA组鸡的淋巴细胞转化率无差异;LA组鸡白细胞总数明显比HA组鸡高(P<0.01);LA组鸡异嗜性细胞与淋巴细胞的比值(H/L)显著高于HA组鸡(P<0.05)。2)急性热应激使HA组鸡淋巴细胞的转化受到抑制,但对LA组鸡无影响;慢性热应激使两组鸡的淋巴细胞转化率都下降,但对LA组鸡影响更明显。3)慢性热应激对HA组鸡白细胞总数无影响,但使其H/L值明显升高;慢性热应激对LA组鸡的H/L值无明显影响,但却使其白细胞总数明显下降。

英文摘要：

The laying hens of 250 day old were divided into high antibody group(HA)or low antibody group (LA) acood-ing to the fifth day’s plasma-antibody liter to sheep red blood cells(SRBC) after primary intravenous immunization. Then studied the effects of high ambient temperature on the immunability of HA chicks and LA chicks. The results as follows:(1)In normal conditions there were no significant difference between LA chicks and HA chicks in lymphocyte transformation (P>0. 05);but LA chicks had more white blood cells than HA chicks (P<0. 01)and the value of heterophil lymphocyte(H/L)of LA chicks was also higher than HA chicks (P<0. 05).(2)Acute heat stress (22 ℃~30@ ,24h)significantly inhibited lymphocyte transformation of HA chicks but it had no influences on LA chicks. Chronic heat stress (35℃ ,5 days old)significantly inhibited both HA chiek’s and LA chick’s lymphocyte transformation (P<0. 05 and P<0. 01 .respectively)(3)Chronic heat stress had no influences on total white blood cells of HA chicks;but increased significantly the values of H/L (P<0. 01). On the contrary,chronic heat stress decreased the total of white blood cells of LA chicks, and had no influence on the value of H/L.

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