

ABSTRACT

The effect of environmental temperature on erythrocyte sedimentation rate (ESR) was studied, using blood collected from (51) males [25 clinically normal volunteers, and 26 patients suffering from pyrexia of undetermined origin (PUO)]. ESR tests were done in Basrah Military Hospital, using Wistergreen method [which is the method being adopted by the International Council for Standardization in Haematology (ICSH)]. The racks were kept at two different temperatures, room temperature (18-25° C) and 45° C. The results indicated that in both groups there were statistically significant differences in ESR values. The ESR values measured at 45° C in the healthy group were significantly higher than those kept at room temperature ($P < 0.05$), while in the patient group such relationship was more clear than in normal volunteer group ($p < 0.01$) vs ($P < 0.05$). It can be concluded that environmental temperature has a significant effect on ESR values. Further studies on a large sample size of population is needed both to define the range of normal ESR in our environment and to determine the correction factor used when performing the test in our locality, if any.