

**EFFECTS OF FEBRILE SEIZURES ON PERIPHERAL BLOOD LEUCOCYTE COUNT**

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In children presenting with febrile seizures, peripheral leucocyte count is often determined to evaluate the source of the fever. Some studies have shown that an increased leucocyte count, with any other obvious clinical sign indicating a bacterial infection, might be explained by the seizure duration itself rather than by the nature of the infection. A retrospective cohort study was performed involving 82 children (38 boys and 44 girls) referred to the Department of Paediatrics, Rijeka, Croatia, with a febrile seizure, between January 1995, and July 2001. The mean patient age was 22,2 months. The following have been carried out: duration of fever prior to seizure, duration of seizure, body temperature at seizure, and peripheral blood leucocyte count. The parameters for bacterial infection were: obvious clinical finding, sedimentation rate > 40, and positive C-reactive protein. Our results indicate that peripheral blood leucocyte count was significantly higher in children with febrile seizures accompanied by bacterial infection (16,58 +/- 0,86) compared to viral infection (10,07 +/- 0,4), due to an increased neutrophile count. In children with bacterial infection no association between seizure duration and blood leucocyte count was found. In contrast, in children with febrile seizures and viral infection the leucocyte count was significantly related to the duration of seizures, suggesting the role for stress mechanisms. Our results indicate that peripheral blood leucocyte count should be used only as an additional tool to a carefully performed patient history and physical examination.

