Comparison of Long-term Outcome Between White and Vietnamese Children Treated for Acute Lymphoblastic Leukemia According to the FRALLE 2000 Protocol

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Abstract **Author Information**

Aim of this Study: To compare the relapse-free survival (RFS) in Vietnamese (n=141) and white (n=94) children living in Vietnam and Belgium, respectively, and treated in their own country for acute lymphoblastic leukemia according to the same FRALLE 2000 protocol.

Results: RFS was significantly worse in Vietnamese children (hazards ratio=4.48; 95% confidence interval [CI], 2.16-9.3; *P*<0.01). The 5-year RFS was 83.8% (95% CI, 76.3%-92.0%) and 47.8% (95% CI, 35.6%-64.2%) for white and Vietnamese children, respectively. In the latter group, relapses occurred in bone marrow and cerebrospinal fluid at a much earlier stage. The outcome was compared at first relapse only because of different treatments afterward, according to the country. Both series were similar for sex, age at diagnosis, initial white blood cell count, cytogenetic abnormalities, and corticosensitivity at day 8. Higher frequency of L2-acute lymphoblastic leukemia (*P*<0.001) but lower frequency of T-acute lymphoblastic leukemia (*P*=0.004) were observed in Vietnamese children.

Conclusions: Several factors may contribute to the poor RFS in Vietnamese children, which include the time interval before the first intrathecal therapy and differences in the management of drug-related toxicity. However, additional contribution of socioeconomic factors and/or variations in pharmacogenetic polymorphisms in Vietnamese patients cannot currently be ruled out.

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