

Prognostic model for pediatric Hodgkin Lymphoma patients in developing country

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Introduction

Pediatric Hodgkin lymphoma (HL) is a disease with high cure rates, but with high treatment-related morbidity. This study aimed to identify prognostic factors for children and juvenile HL patients treated in a developing country given the lack of risk stratification targeting the populations of these countries.

Methods

A retrospective cohort of patients diagnosed with HL and treated at the Instituto de Medicina Integral Professor Fernando Figueira - IMIP Hospital (Recife, Brazil) was constructed. The cohort comprised patients aged up to 18 years and treated between 1994 and 2017 using the HOD-94 or adapted HOD-08/99 protocols (replacement of mechlorethamine by cyclophosphamide). Demographic, clinical and laboratory data at diagnosis were evaluated by descriptive, univariate and multivariate analysis, associating these characteristics with unfavorable outcomes (death and relapse). Statistically significant variables in the multivariate analysis were considered for the construction of prognostic scores by latent class analysis. Statistical analyses were performed using the R software package and a 95% significance level.

Results

Data were collected from medical records of 126 pediatric Hodgkin lymphoma patients. There was a predominance of male gender (72.0%), children up to 12 years (62.4%), and the histological subtype Nodular Sclerosis followed by Mixed Cellularity subtype. Patients with splenomegaly and high LDH levels presenting or not mediastinal bulk disease or lethargy were associated with a higher risk of relapse ($P < 0.0001$), and patients with lethargy or increased abdominal volume whether or not accompanied by nocturnal sweating had lower overall survival ($P = 0.015$).

Conclusion

These prognostic scores were constructed for patients treated in developing countries and employ low-cost parameters at diagnosis, which may be relevant for a better management of the target population. However, prospective studies should be developed to validate this score in other developing countries with characteristics similar to Brazil.

Acknowledgment

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Affix**References**

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