Sporadic paediatric and adult Burkitt lymphomas share similar phenotypic and genotypic features

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摘要

Abstract

AIMS: To characterize the clinicopathological features of sporadic Burkitt lymphoma (BL). METHODS AND RESULTS: A retrospective study of 17 paediatric and 14 adult BLs with history and histopathology review, immunohistochemistry, Epstein-Barr virus (EBV) in situ hybridization (EBER) and fluorescence in situ hybridization. There was no statistically significant difference in gender, frequency of central nervous system (CNS) involvement and leukaemic change at presentation, or frequency of CD10+/Bcl-2-/Bcl-6+ (88% versus 86%), Ki67 labelling index, EBER (24% versus 21%), or C-MYC translocation (100% versus 92%) between paediatric and adult tumours. Correct pretreatment diagnoses were made in 13/17 (76%) paediatric and in 9/14 (64%) adult tumours. Twenty-eight patients received chemotherapy including 13/16 (81%) paediatric and 3/12 (25%) adult patients with appropriate regimens; 16 (57%) received CNS prophylaxis. The 1- and 5-year overall survival (OS) rates for paediatric patients were 80% and 50%, respectively, whereas 1-year OS for adults was 15%. CONCLUSIONS: Sporadic paediatric and adult BLs were phenotypically and genotypically similar. The significant prognosticators were age (P = 0.001), with or without CNS prophylaxis (P = 0.004), and CNS involvement (P = 0.008) and leukaemic change (P = 0.019) in disease course. The poor outcome in adult patients might be related to incorrect diagnosis and inappropriate treatment.