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16-ICML SPECIAL LECTURE: LYMPHOMA TREATMENT IN DEVELOPING COUNTRIES

088 | LYMPHOMA TREATMENT IN DEVELOPING COUNTRIES

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Over the last 30 years numerous pediatric oncology programs have been established in Low Middle Income Countries (LMIC) through international cooperation projects. Treatment of lymphomas faced major challenges in diagnostics requirements (pathology and imaging) and shortage of chemotherapeutic agents and of support therapy, with need of protocols adaptation to local situations. Projects for Burkitt Lymphoma, facilitated by the biological features of the

disease, have been quite successful since the beginning in different geographical areas, and particularly in Africa, where this lymphoma is endemic. These initiatives were coordinated by the International Society of Pediatric Oncology (SIOP), the French African Group of Pediatric Oncology (GFAOP) and other organizations.

The Center of Pediatric Hemato-Oncology of Monza, together with the Pediatric Oncology Department of the Istituto Tumori of Milano (INT), the Associazione Medica per l'aiuto al Centro America (AMCA, Bellinzona, Switzerland) and SJCRH (USA) has pioneered Pediatric Oncology in Nicaragua and Central America, where the Pediatric Hemato-Oncology Association of Central America (AHOPCA) was instituted, to develop common treatment strategies and protocols to diagnose and treat most common childhood malignancies in the whole area.

Hodgkin Disease (HD) was treated initially in the early 90ies in Nicaragua and subsequently in the AHOPCA Countries with COPP - COPP/ABV courses; staging was done with X-rays and ultrasound only; radiation therapy (RT) was not available. Results of the AHOPCA LH 1999 protocol in 216 eligible patients showed that abandonment rate was 14%; treatment was well tolerated; EFS at 5 and 10 years was 71% and 68% respectively. The subsequent AHOPCA LH 2004 protocol used ABVD courses for favorable disease and OEPA COPDac courses for the high risk group and limited RT. The 5-year EFS and Survival in 933 patients evaluable were 72.3% and 81.3%, with abandonment considered event or 79.9% and 87.4% when abandonment was censored. This experience served to generate the CLEHOP LH protocol, which is now used in many Countries of Latin America.

Burkitt Lymphoma has been treated with a modified reduced intensity NHL BFM-90 regimen. Despite an Induction death rate of 8.8% and an abandonment rate of 6%, a 3 years EFS of 70% was achieved in 386 eligible patients diagnosed in the period 2004 - 2016. Currently a new study is ongoing with better control of diagnostic accuracy including genetics.

Patients with LACL have been treated with different protocols (APO, a Protocol designed for T-ALL, a modified BFM protocol) with an overall 5-year EFS of 67%. Lymphoblastic lymphomas are generally treated with modified ALL protocols. Although no reports on outcome in these patients are available, it should be slightly superior to that of ALL, for which a long term EFS close to 50% is obtained. The disadvantage in this disease is the need of longer treatment duration, which is associated with toxicity deaths and high rates of abandonment.

Overall these experiences show that, despite the diagnostic and imaging limitations, childhood lymphomas can be treated successfully in LMIC if there is a local commitment. The major challenges are the accuracy of the diagnosis, availability of antineoplastic agents and support therapy. Global medicine programs can play a key role to improve these outcomes, in keeping with the recommendations and commitment by the WHO too.

Keywords: Therapeutics and Clinical Trials in Lymphoma

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