A Giant Inguino-Scrotal Tumor as Presentation of Burkitt’s Lymphoma in Souro Sanou Teaching Hospital of Bobo Dioulasso, Burkina Faso

Abstract: We present a case of inguino-scrotal tumor involving a seven years old child caused by Burkitt’s lymphoma and analyse the literature on this rare condition. At presentation, clinical examination showed impressive left inguino-scrotal tumor placed on the pubis. Blood analysis indicated mild anaemia and abnormal serum electrolytes. There were no signs of tumour lysis syndrome. Microscopic analysis of the tumor biopsy adduced the diagnosis of Burkitt’s lymphoma. Early and aggressive therapy is the key to ensure a good outcome.

Keywords: Burkitt’s lymphoma – testicular – biopsy.

INTRODUCTION

Burkitt’s lymphoma (BL) is the most frequent lymphoma of childhood in West Africa. The main locations are facial and abdominal (Adonis-Koffy, L. et al., 2003). Two forms of BL are commonly distinguished: the “endemic” or African form, first described in 1958, and the “sporadic” form, found in the rest of the world including North America, Northern and Eastern Europe, and the Far East (Cardy, A. H. et al., 2001). Here we describe the clinical presentation of a case of BL in a child that occurred in a rare site.

CASE PRESENTATION

A 7-year-old boy presented with a 3-months history of general weakness and pubis pain. Personal and family history were unremarkable. Physical examination revealed impressive left inguino-scrotal tumor placed on the pubis. Abdomen where normal (Fig.1; Fig. 2). No peripheral lymphadenopathies were found. Fine needle aspiration of the tumor showed malignant cells. Since cerebrospinal fluid was negative for malignant cells, fine needle aspiration and a biopsy were performed. This revealed Burkitt’s lymphoma lesion: diffuse, medium sized lymphoid infiltrate, with little basophilic cytoplasm, and large combined with small distinct nucleoli could be seen on May-Grunwald-Giemsa (MGG) and hematoxin-eosin stains. Interspersed apoptotic bodies and tangible-body macrophages were present, creating the characteristic starry-sky appearance of Burkitt’s lymphoma (Fig.5; Fig.6; Fig.7; Fig.8). The neoplastic cells expressed CD20, CD10 and CMYC, but no Bcl2.Treatment regimen contained a prephase with cyclophosphamide, vinclristine, predinsone, high-dose methotrexate (HDMTX), 2 consolidation courses (cytobanine, HDMTX), and a maintenance phase only for stage IV. HDMTX was given at the dose of 3 g/m2.
DISCUSSION

The disease: We present a case of inguino-scrotal tumor caused by primary lymphomatous infiltration by Burkitt’s lymphoma. Non-Hodgkin lymphoma (NHL) is one of the commonest subtypes of malignancy in children (7%). It develops in lymphocytes and multiple subtypes have been described. Burkitt’s lymphoma, named after Denis Parsons Burkitt, is the most prevalent subtype and accounts for approximately 45% of paediatric cases. It is a poorly differentiated lymphocytic lymphoma, consisting of monoclonal proliferating B-lymphocytes, with a characteristic underlying myc translocation at 8q24. This tumor predominantly affects children aged from 5 to 14 years, and is probably the fastest growing tumor in humans. As a consequence, more than 70% of patients present with advanced disease at diagnosis. Thanks to the use of intensive multiagent chemotherapy, most patients with Burkitt’s lymphoma can now be cured, with 5-year event-free survival above 80% (Molyneux, E. M. et al., 2012; & Patte, C. et al., 2007).

The location: The endemic Burkitt lymphoma prevalent in our context is a tumor usually located in the maxillofacial and abdominal areas (Fig.3; Fig.4). However, in the literature, localization to peripheral ganglia, in particular the inguinal ganglia and the testicle, is a rare affection; this location is described in the elderly (M Yahia et al., 2018; Abid, N. et al., 2013; & Home, M. J., & Adeniran, A. J. 2011). This is a fact shared in the studies carried out in our context; Bouda et al., reported 2 out of 400 cases of testicular Burkitt lymphoma in children over 7 years Koffi et al., (2010) list 4 cases of peripheral lymph nodes and 3 cases of testicle localization out of 106 cases collected in 10 years (). C. Sénéchal et al., reported 8 cases of primary non-Hodgkin lymphoma of the testicle in 24 years (Koffi et al., 2010).

The diagnosis: In our context, the diagnosis of Burkitt’s lymphoma is easy; the presence of malignant cells in cytology is sufficient to make the diagnosis. Indeed, the presence of interspersed apoptotic bodies and tangible-body macrophages, creating the characteristic starry-sky appearance can be observed in cytology. Burkitt’s lymphoma is the only type of lymphoma that can be diagnosed by cytology. In histology, hematein-eosin stain is sufficient. As Burkitt’s lymphoma is almost associated with infection with the Epstein Barr Virus, it is necessary to highlight the virus and the mutation in molecular biology.

CONCLUSION:

Burkitt’s lymphoma is a high grade malignancy cancer. We have reported a case of inguino-scrotal Burkitt’s lymphoma, a rare site among maxillofacial and abdomen. As Burkitt’s lymphoma is a frequent virus-induced cancer, the future prospects could integrate prevention against the Epstein Barr virus (vaccination).
REFERENCES


