International Pathology Day 2021

The Royal College of Pathologists
Pathology: the science behind the cure

SONIC HEALTHCARE UK

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BURKITT LYMPHOMA RARE PRESENTATIONS: ANCILLIARY TESTS ARE THE BOON!!

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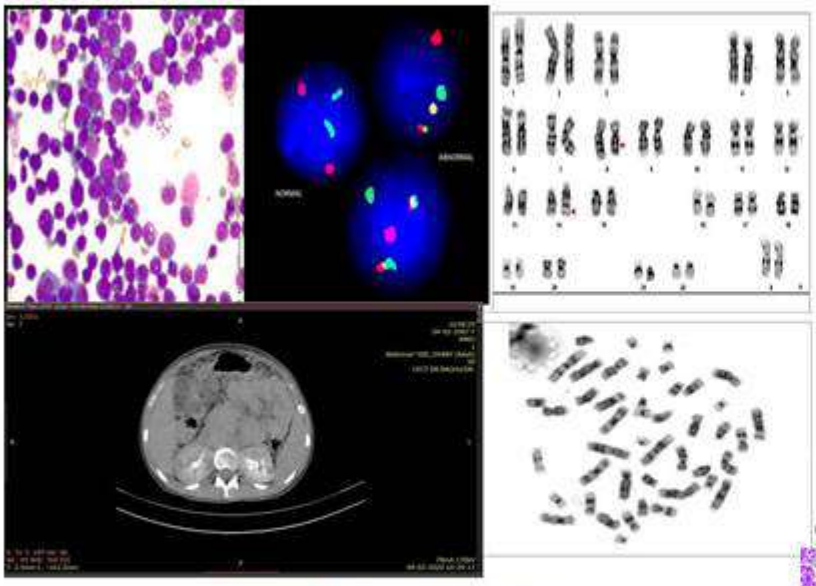
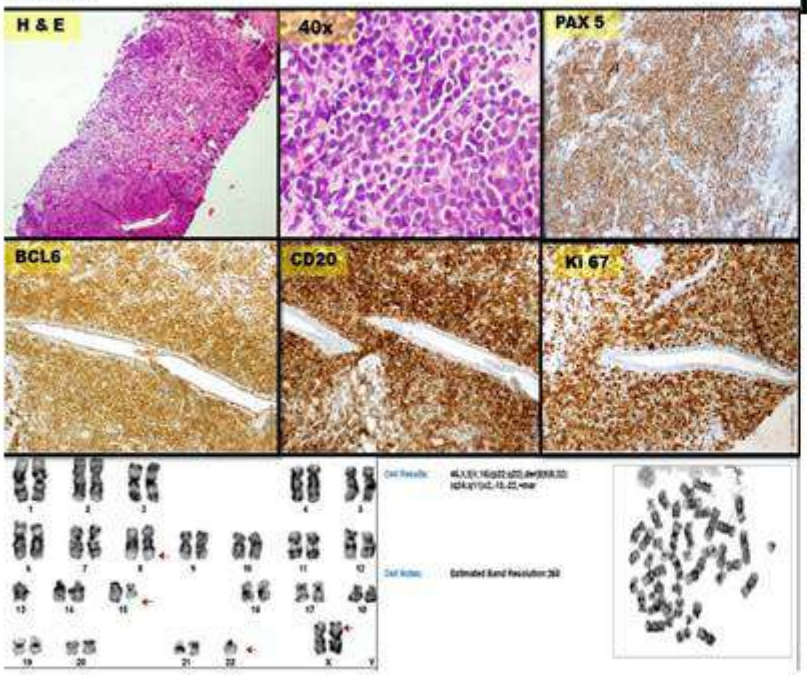
Case 1



Case 1 is a 13year female with abdominal swelling of 28-30weeks. Imaging-wise she had bilateral solid ovarian masses of 18cm and 17cm greatest dimensions with pleural effusion and ascites, with differential diagnosis of Dysgerminoma. Cytomorphology and immunophenotyping of the aspirated pleural fluid, aided with karyotyping and FISH confirmed **Burkitt lymphoma** with **46,XX,t(8;14)(q24,q32)**.

Case 2 is a five year boy who had bilateral flank masses. Clinicoradiological differential diagnoses were neuroblastoma/ wilms' tumour. FNAC and cell block impression of renal mass with immunohistochemistery and karyotyping confirmed **Burkitt lymphoma** with **46,XY,t(2;8)(p12;q24).**

Case 3

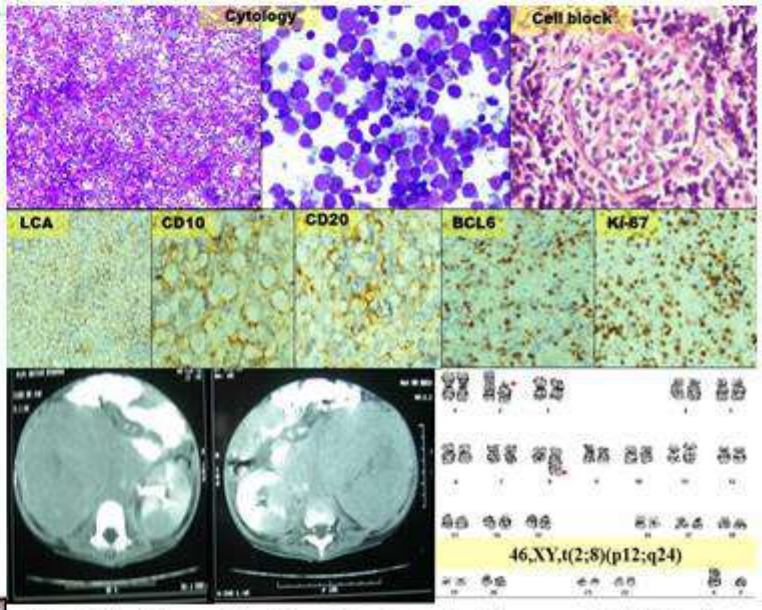


Background: Burkitt lymphoma-

- Highly aggressive and curable malignant lymphoma presents often extranodally or as leukemia.
- Types: endemic, sporadic and immunodeficiency associated.
- Etiology: EBV associated in >95%.

We unveil to you, three unusual presentations of Burkitt lymphoma cases diagnosed in our institution using clinico-radio-pathological impressions aided with ancilliary tests like immunophenotyping, immunohistochemistry, conventional karyotyping and FISH. These are supported with artificial intelligence techniques.
The study was done between 2019 and 2020 in a tertiary cancer centre in southern India. We had 21 cases of Burkitt lymphoma, of which the following three cases had unusual presentation.

Case 2



Case 3 is a 21year female with pain and enlargement of bilateral breasts, underwent FNAC and trucut biopsy of the lesions. Histomorphology and immunohistochemistry features along with karyotyping of FNA material confirmed **Burkitt lymphoma** with **46,X,t(X;15)(p22;q22),der(8)t(8;22)(q24,q11),-13, -22,+mar.**

All three cases were started on chemotherapy as early as possible. The first phase of induction had a good response. Eventually responded poorly and expired.

Conclusion: As the presentations are rare, they pose diagnostic challenges. Since the disease is aggressive and may have rapid, unfavourable outcome, it is important among developing countries to diagnose them beseeching the ancilliary tests with newer technologies and artificial intelligence for the treatment of the curable disease before the deadline.

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