The registered 1000 cases of Japanese non-Uganda genotype strains.

Results: Aplastic anemia cases showed very severe hypoplastic marrow without megakaryocyte and scarce granulopoiesis. Lymphocytes, especially CD8+ T-cells, were predominant. RCC cases were hypoplastic marrow with patchy pattern. Erythropoiesis were mainly composed by large erythroblasts with left shift and baring hemoglobin fetal type (HBF). A few marrow cells were stained p53. Megakaryocytes with single small nuclei or micromegakaryocytes were demonstrated by IHC. RCMD was hypo-normocellular marrow and distinctive erythropoiesis with left shift. P53 + cells were relatively more than RCC, RAEB or AML with MRC had increased number of p53 + cells and CD34 + blasts. Small and micromegakaryocytes were frequently observed. No evidence of AA or MDS cases were categorized into secondary dysmegakaryopoiesis of unknown causes or inherited BMFS.

Conclusion: Bone marrow pathology with IHC were useful for the definite diagnosis of childhood BMFS.

Hematopathology: Poster#191

CHARACTERISTICS AND CLASSIFICATION OF HIGH-GRADE B-CELL LYMPHOMAS IN RESOURCE-LIMITED SETTINGS

Shahin Sayed1, Alexandra E. Kovach1, Patrick McLaughlin1, Zahir Moloo1, Satya Varas Prasad Busarla3, Omar Sherman3, Nancy Lee Harris2 and Aliyah R. Sohani1
1Department of Pathology, Aga Khan University Hospital, Nairobi, Kenya, 2Department of Pathology, Massachusetts General Hospital, Boston, MA, United States of America, 3Department of Pathology, Aga Khan Hospital, Kisumu, Kenya, and 4Department of Pathology, Aga Khan Hospital, Mombasa, Kenya

Distinguishing Burkitt lymphoma (BL) from diffuse large B-cell lymphoma (DLBCL), important for prognosis and guiding therapy, typically requires a panel of immunohistochemistry (IHC) and FISH. We define a practical approach to high-grade B-cell lymphoma classification in resource-limited settings. Among 65 cases previously diagnosed as DLBCL from 3 Kenyan hospitals, 43/65 cases (66%) were reclassified as DLBCL, 19 (29%) as BL, and 3 (5%) as plasmablastic lymphoma (PBL) based on a combination of morphology and IHC, with MYC and BCL2 FISH in select cases. All BL were CD10+ with high MYC (median 80%, range 25–100%) and Ki67 (median 75%, range 0–100%); 18/19 (95%) were BCL2-. Ki67 was higher in BL vs DLBCL (p = 0.002) and >40% MYC more common in BL vs DLBCL (p = 0.0001). All 3 PBL had plasmacytic features and were CD20-, CD38+, kappa or lambda+. Morphology and IHC for CD20, CD10, BCL2 and MYC can be used to distinguish BL from DLBCL without the need for FISH. CD20- cases may be stained for CD138 and light chains to help exclude PBL. Technical differences in tissue processing likely account for the variability seen in MYC and Ki67 staining, suggesting the need for lower diagnostic and prognostic cut-offs in resource-limited settings.
Results: Of the 121 participants, 56 (46%) were infected with strains of Uganda genotype. Patients infected with this genotype had significantly lower frequency of abdominal lymphadenopathy (odds ratio 0.4, \( p = 0.046 \)) after adjusting for sex, age and HIV. Abdominal lymphadenopathy was also significantly associated with abnormal chest X-ray (\( p = 0.027 \)).

Conclusion: Tuberculous lymphadenitis patients infected with \( M. \) tuberculosis Uganda genotype were significantly less prone to have abdominal lymphadenopathy indicating potential reduced ability to disseminate and supporting the concept that differences in \( M. \) tuberculosis genotype may have clinical implications.

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CLINICOPATHOLOGICAL STUDIES ON BONE MARROW INVOLVEMENT OF MANTLE CELL LYMPHOMA

Zhanqi Li, Enbin Liu, Qi Sun, Fujin Sun, Qingying Yang, Peihong Zhang and Kun Ru
Institute of Hematology and Blood Diseases Hospital, Chinese Academy of Medical Sciences, China

Mantle cell lymphoma is a rare lymphoma and involvement of bone marrow is more rare. Here, we concluded the features, diagnosis and other points of the involvement to illustrate the diagnostic main point of mantle cell lymphoma on pathology.

Objective: To explore clinicopathological features, diagnosis and differential diagnosis of bone marrow involvement of mantle cell lymphoma (MCL).

Methods: 55 bone marrow involvement of MCL with bone marrow biopsy from 2006 to 2012 were analyzed retrospectively. There were 15 patients with lymph node specimens and available 8 spleen specimens in the 55 patients. We found some features of bone marrow involvement of MCL on the basis of WHO classification.

Results: The median age at diagnosis is 55 years, M:F = 2.67:1 (male 40 and female 15). The type of involvement includes interstitial, intrasinusoidal, diffuse and mixed infiltration; the last is common. MCL usually consists of small to medium-sized lymphoid elements and characterized by expression of the B-cell markers. The characteristic expression of MCL is CD5 and cyclinD1. The MCL has four cytological variants. Among these, the classic variant is most commonly found. The prognosis has two major factors, the number of mitotic figures and Ki-67 making can divide different groups on prognosis.

Conclusion: The infiltration of MCL is rare and has specific features on bone marrow. It must be distinguished from other mature B cell lymphomas.

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CUTANEOUS MARGINAL ZONE B-CELL LYMPHOMA WITH HIGH IGA EXPRESSION AND IGA + DUTCHER BODIES: A CASE REPORT

Worapop Sutiwartharanaveep1, Panlop Chakkavittumrong2 and Narong Warnnissorn1
1Department of Pathology and Forensic Medicine, and 2Department of Medicine, Faculty of Medicine, Thammasat University, Thailand

Cutaneous marginal zone B-cell lymphoma (cuMZL) is an indolent lymphoma with dermal nodular or diffuse lymphoid infiltrate consisting of small B cells varying from centrocyte-like, monocytoid, lymphoplasmacytoid and plasma cells. The Dutcher bodies (DB) were found in 20%.\(^1\) Immunohistochemistry (IHC) or in situ hybridization (ISH) detected light chain restriction in 78% and IGH PCR detected clonality in 46%.\(^2\) Distinguishing cutaneous reactive from neoplastic B-cell lymphoid infiltrate can be difficult. The elderly male presented with violaceous to hyperpigmented plaques at back and cheek which had progressed over five years. Skin biopsies from both sites showed nodular small lymphoid infiltrates with prominent plasma cells and rare DB. The small lymphoid cells were mixture of lymphoplasmacytoid and few monocytoid cells. They were positive for CD20 and CD79a, and negative for CD5, CD10, CD23 and cyclin D1. Plasma cells expressed polytypic light chain immunoglobulin (kappa:lambda = 3:1) by IHC and 2:1 by ISH) with increased IgA expression (IgG:IgA:IgM = 8:5: < 1) and rare IgA DB. Despite absence of clonal IGH gene rearrangement, this case was diagnosed with cuMZL. Bone marrow biopsy and laboratory tests did not detect systemic involvement.

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EXPRESSION PROFILING OF miRNAs AND THEIR TARGET GENES IN PERIPHERAL T CELL LYMPHOMA, NOT OTHERWISE SPECIFIED

Min Li\(^1\), Ning Lyu\(^2\), Hongxia Liu\(^3\), Dingbao Chen\(^4\) and Jianzhong Zhang\(^3\)

1Department of Pathology, 306 Hospital of PLA, Beijing, China, 2Cancer Institute/Hospital, Chinese Academy of Medical Sciences, Beijing, China, 3Tangshan Union Hospital, Tangshan, China, and 4Peking University Peoples Hospital, Beijing, China

Background: To study the expression profile of microRNAs (miRNAs) in peripheral T cell lymphoma, not otherwise specified (PTCL-NOS) and to explore the molecular characteristics.

Methods: TaqMan low density array was used to assess the expression level of 754 miRNAs in six cases of PTCL-NOS and three cases of reactive lymphoid hyperemia as control. We predicted target genes for significantly and differentially expressed miRNAs with Targetscan and miRanda software. Bioinformatics tools were used for the GO-Analysis and Pathway-Analysis of target genes. The expression patterns of the 3 miRNAs were further analyzed in another 15 cases of PTCL-NOS and 10 cases of benign reactive lymphoid hyperemia, using the single tube Taqman miRNA assays.

Results: Eight miRNAs showed statistically significant difference between PTCL-NOS and benign reactive lymphoid hyperemia. miR-866-3p, miR-511, miR-1291, miR-572, miR-27a-3p, miR-25-3p and miR-866-5p were significantly over-expressed in PTCL-NOS while miR-182-5p was significantly under-expressed (\( p < 0.05 \)). Target genes prediction showed 1646 candidate genes involved in the pathogenesis and progression of PTCL-NOS. Further GO and Pathway analysis found these genes significantly focused on 63 GO terms and 61 pathways. The results of three miRNA qRT PCR confirmed that miR-572 and miR-1291 in PTCL-NOS expression had statistical significance.