California Tumor Tissue Registry's Subscription "C" - Vol 1(5) February, 2008

"Hematologic & Related Disorders"

Case 1

Donation: Dr. Jun Wang, MD, Loma Linda University Medical Center, Loma Linda, CA

History: 27 year old male with multiple brain, lung and liver lesions. Slide is from a lung biopsy.

Bcl-1 Negative
Bcl-2 Scattered T cells positive
Bcl-6 Some large B-cell nuclei positive
CD3 Many T cells positive
CD5 Many T cells positive
CD10 Scattered stromal cells positive
CD20 Some large B cells as well as scattered residual follicles positive
CD21 Negative
CD23 Negative
CD43 Many T cells/histiocytes positive
CD68 Scattered histiocytes positive
CD30 Scattered large cells positive
PAX-5 Some large B-cell nuclei and scattered small B cell nuclei positive
Kappa Some plasma cells and scattered B cells positive (~30%)
Lambda Few plasma cells positive (1-2%)
IgD Negative
AFB Negative for acid-fast bacilli
Gram Negative for bacteria
GMS Negative for fungi
EBER-1 Positive (20-40% nuclear positivity)(>20 nuclei/per high power field)

Diagnosis: Lymphomatoid Granulomatosis

Kwon EJ; Katz KA; Draft KS; Seykora JT; Rook AH; Wasik MA; Junkins-Hopkins JM: Posttransplantation lymphoproliferative disease with features of lymphomatoid granulomatosis in a lung transplant patient. J Am Acad Dermatol 2006 Apr;54(4): p657-63

Culhaci N; Levi E; Sen S; Kacar F; Meteoglu I. Pulmonary lymphomatoid granulomatosis evolving to large cell lymphoma in the skin. Pathol Oncol Res 2002;8(4): p280-2

Mizuno T; Takanashi Y; Onodera H; Shigeta M; Tanaka N; Yuya H; Kitaichi M; Nakajima K. A case of lymphomatoid granulomatosis/angiocentric immunoproliferative lesion with long clinical course and diffuse brain involvement. J Neurol Sci 2003 Sep 15;213(1-2): p67-76

Bolaman Z; Kadikoylu G; Polatli M; Barutca S; Culhaci N; Senturk T. Migratory nodules in the lung: lymphomatoid granulomatosis. Leuk Lymphoma 2003 Jan;44(1): p197-200

Zaidi A; Kampalath B; Peltier WL; Vesole DH. Successful treatment of systemic and central nervous system lymphomatoid granulomatosis with rituximab. Leuk Lymphoma 2004 Apr;45(4): p777-80

Hu X; Selbs E; Drexler S. An 18-year-old man with persistent cough and bilateral lower lung infiltration. Epstein-Barr virus-positive lymphoproliferative disorder consistent with lymphomatoid granulomatosis. Arch Pathol Lab Med 2006 Mar;130(3): pe44-6

Case 2

Donation: Dr. Antranik Bedros, MD, Loma Linda Unveristy Medical Center, Loma Linda, CA

History: 14 year old female with pancytopenia and massive splenomegaly. Slide is from a bone marrow core biopsy.

Diagnosis: Gaucher Disease

Pensiero S; Accardo A; Pittis MG; Ciana G; Bembi B; Perissutti P. Saccade testing in the diagnosis and treatment of type 3 Gaucher disease. Neurology 2005 Dec 13;65(11): p1837

Fuller M; Lovejoy M; Hopwood JJ; Meikle PJ. Immunoquantification of beta-glucosidase: diagnosis and prediction of severity in Gaucher disease. Clin Chem 2005 Nov;51(11): p2200-2

Kaleem Z; Hassan A. Multiple lytic bone lesions in an 85-year-old man: type 1 Gaucher disease, adult onset (non-neuronopathic form). Arch Pathol Lab Med 2005 Jun;129(6): pe148-50

Jmoudiak M; Futerman AH. Gaucher disease: pathological mechanisms and modern management. Br J Haematol 2005 Apr;129(2): p178-88

Pastores GM; Weinreb NJ; Aerts H; Andria G; Cox TM; Giralt M; Grabowski GA; Mistry PK; Tylki-Szymanska A. Therapeutic goals in the treatment of Gaucher disease. Semin Hematol 2004 Oct;41(4 Suppl 5): p4-14

Michelin K; Wajner A; Goulart Lda S; Fachel AA; Pereira ML; de Mello AS; Souza FT; Pires RF; Giugliani R; Coelho JC. Biochemical study on beta-glucosidase in individuals with Gaucher's disease and normal subjects. Clin Chim Acta 2004 May;343(1-2): p145-53

Case 3

Donation: Dr. Jun Wang, MD, Loma Linda University Medical Center, Loma Linda, CA

History: 13 year old male four month hx of a nodule in skin of the abdominal wall. A 0.2 cm punch biopsy is represented. Special stains accompany.

Diagnosis: Extramedullary Myeloid Sarcoma, Monocytic Lineage

Zekry N; Klooster MJ; Raghavan R; Wang J. A 7-year-old child with a history of acute myeloid leukemia presenting with multiple

gastrointestinal polyps. Extramedullary myeloid sarcoma. Arch Pathol Lab Med 2006 Jan;130(1): p3-4

Palomino-Portilla EA; Valbuena JR; Quinones-Avila Mdel P; Medeiros LJ. Myeloid sarcoma of appendix mimicking acute appendicitis. Arch Pathol Lab Med 2005 Aug;129(8): p1027-31

Ansari-Lari MA; Yang CF; Tinawi-Aljundi R; Cooper L; Long P; Allan RH; Borowitz MJ; Berg KD; Murphy KM. FLT3 mutations in myeloid sarcoma. Br J Haematol 2004 Sep;126(6): p785-91

Case 4

Donation: Dr. Jun Wang, MD, Loma Linda University Medical Center, Loma Linda, CA

History: 21 year old female with right cervical adenopathy. The removed nodes were in three fragments 1.0-2.0 cm in greatest dimension.

CAM5.2	Negative
AFB	Negative
GMS	Negative

(additional stains provided)

Diagnosis: Histiocytic Necrotizing Lymphadenitis (Kikuchi's)

Dominguez DC; Torres ML; Antony S. Is human herpesvirus 6 linked to kikuchi-fujimoto disease? The importance of consistent molecular and serologic analysis. South Med J 2003 Mar;96(3): p226-33

Kuo TT; Lo SK. Significance of histological subtypes of Kikuchi's disease: comparative immunohistochemical and apoptotic studies. Pathol Int 2004 Apr;54(4): p237-40

Onciu M; Medeiros LJ. Kikuchi-Fujimoto lymphadenitis. Adv Anat Pathol 2003 Jul;10(4): p204-11

Famularo G; Giustiniani MC; Marasco A; Minisola G; Nicotra GC; De Simone C. Kikuchi Fujimoto lymphadenitis: case report and literature review. Am J Hematol 2003 Sep;74(1): p60-3

George TI; Jones CD; Zehnder JL; Warnke RA; Dorfman RF. Lack of human herpesvirus 8 and Epstein-Barr virus in Kikuchi's histiocytic necrotizing lymphadenitis. Hum Pathol 2003 Feb;34(2): p130-5

Bosch X; Guilabert A; Miquel R; Campo E. Enigmatic Kikuchi-Fujimoto disease: a comprehensive review. Am J Clin Pathol 2004 Jul;122(1): p141-52

Ramsay AD. Reactive lymph nodes in pediatric practice. Am J Clin Pathol 2004 Dec;122 Suppl:S87-97

Case 5

Donation: Dr. Jun Wang, Loma Linda University Medical Center, Loma Linda, CA

History: 25 year old female with a right elbow lymph node mass. Two white tan nodules, 1.9 to 2.8 cm in greatest dimension, were removed.

Diagnosis: Kimura Lymphadenopathy

Huang GS; Lee HS; Chiu YC; Yu CC; Chen CY. Kimura's disease of the elbows. Skeletal Radiol 2005 Sep;34(9): p555-8

Chen H; Thompson LD; Aguilera NS; Abbondanzo SL. Kimura disease: a clinicopathologic study of 21 cases. Am J Surg Pathol 2004 Apr;28(4): p505-13.

Chim CS; Fung A; Shek TW; Liang R; Ho WK; Kwong YL. Analysis of Clonality in Kimura's Disease. Am J Surg Pathol 2002 Aug;26(8): p1083-6.

Wang TF; Liu SH; Kao CH; Chu SC; Kao RH; Li CC. Kimura's disease with generalized lymphadenopathy demonstrated by positron emission tomography scan. Intern Med 2006;45(12): p775-8

Hobeika CM; Mohammed TL; Johnson GL; Hansen K. Kimura's disease: case report and review of the literature. J Thorac Imaging 2005 Nov;20(4): p298-300

Case 6

Donation: Dr. Jun Wang, Loma Linda University Medical Center, Loma Linda, CA

History: 36 year old female with cervical lymphadenopathy. Special stains provided.

Diagnosis: Anaplastic large cell lymphoma, T/null cell type

Creager AJ; Geisinger KR; Bergman S. Neutrophil-rich Ki-1-positive anaplastic large cell lymphoma: a study by fine-needle aspiration biopsy. Am J Clin Pathol 2002 May;117(5): p709-15

Herling M; Rassidakis GZ; Jones D; Schmitt-Graeff A; Sarris AH; Medeiros LJ. Absence of Epstein-Barr virus in anaplastic large cell lymphoma: a study of 64 cases classified according to World Health Organization criteria. Hum Pathol 2004 Apr;35(4): p455-9

Ozdemirli M; Cheson B; Jaffe ES. What is anaplastic large cell lymphoma? Comment On: RefSource:Am J Surg Pathol. 2004 Mar; 28(3):410-5. Am J Surg Pathol 2004 Dec;28(12): p1664-5; author reply 1665-7

Kutok JL; Aster JC. Molecular biology of anaplastic lymphoma kinase-positive anaplastic large-cell lymphoma. J Clin Oncol 2002 Sep 1;20(17): p3691-702

Agarwal S; Ramanathan U; Naresh KN. Epstein-Barr virus association and ALK gene expression in anaplastic large-cell lymphoma. Comment In:

RefSource:Hum Pathol. 2002 Feb; 33(2):143-5/PMID:11957136 Hum Pathol 2002 Feb;33(2): p146-52

Case 7

Donation: Dr. Jun Wang, Loma Linda University Medical Center, Loma Linda, CA

History: 66 year old male with firm violaceous cutaneous nodules. A 0.5 cm punch biopsy from the left upper arm was performed. Special stains provided.

Diagnosis: CD4+/CD56+ Hematodermic Neoplasm

Ng AP; Lade S; Rutherford T; McCormack C; Prince HM; Westerman DA. Primary cutaneous CD4+/CD56+ hematodermic neoplasm (blastic NK-cell lymphoma): a report of five cases. Haematologica 2006 Jan;91(1): p143-4

Wu HH; Ren R; Roepke JE. Fine-needle aspiration cytology of blastic natural killer-cell lymphoma (CD4+ CD56+ hematodermic neoplasm). Diagn Cytopathol 2004 Apr;30(4): p268-70

Urosevic M; Conrad C; Kamarashev J; Asagoe K; Cozzio A; Burg G; Dummer R. CD4+CD56+ hematodermic neoplasms bear a plasmacytoid dendritic cell phenotype. Hum Pathol 2005 Sep;36(9): p1020-4

Petrella T; Bagot M; Willemze R; Beylot-Barry M; Vergier B; Delaunay M; Meijer CJ; Courville P; Joly P; Grange F; De Muret A; Machet L; Dompmartin A; Bosq J; Durlach A; Bernard P; Dalac S; Dechelotte P; D'Incan M; Wechsler J; Teitell MA. Blastic NK-cell lymphomas (agranular CD4+CD56+ hematodermic neoplasms): a review. Am J Clin Pathol 2005 May;123(5): p662-75

Petrella T; Comeau MR; Maynadie M; Couillault G; De Muret A; Maliszewski CR; Dalac S; Durlach A; Galibert L. 'Agranular CD4+ CD56+ hematodermic neoplasm' (blastic NK-cell lymphoma) originates from a population of CD56+ precursor cells related to plasmacytoid monocytes. Comment In: RefSource:Am J Surg Pathol. 2003 Nov; 27(11):1489-92; author reply 1492-3/PMID:14576486. Am J Surg Pathol 2002 Jul;26(7): p852-62

Case 8

Donation: Dr. Craig Zuppan, MD, Loma Linda University Medical Center, Loma Linda, CA

History: 15 year old male with a large, centrally necrotic, left distal thigh mass. The patient also had multiple retroperitoneal masses. Submitted slide is from a left distal medial thigh core biopsy.

CD2	rarely positive
CD5	negative
CD10	negative
CD34	negative
Desmin	negative
Myogenin	negative
Ki-67	90-95% expression
EMA	negative

CAM5.2 negative
(additional stains provided)

Diagnosis: Anaplastic large cell lymphoma, small cell variant

Kong SY; Cho HJ; Suk JH; Tak EY; Ko YH; Kim K; Kim SH. A novel complex t(2; 5; 13)(p23; q35; q14) in small cell variant type anaplastic large cell lymphoma with peripheral involvement. Cancer Genet Cytogenet 2004 Oct 15;154(2): p183-5

Gatter KM; Rader A; Braziel RM. Fine-needle aspiration biopsy of anaplastic large cell lymphoma, small cell variant with prominent plasmacytoid features: case report. Comment In: RefSource:Diag Cytopathol. 2002 Nov; 27(5):318-20; author reply 321/PMID:12412001
Diag Cytopathol 2002 Feb;26(2): p113-6

Kim SE; Kim SH; Lim BJ; Hong SW; Yang WI. Fine needle aspiration cytology of small cell variant of anaplastic large cell lymphoma. A case report. Acta Cytol 2004 Mar-Apr;48(2): p254-8

Awaya N; Mori S; Takeuchi H; Mori S; Sugano Y; Kamata T; Takeuchi T; Abe T. CD30 and the NPM-ALK fusion protein (p80) are differentially expressed between peripheral blood and bone marrow in primary small cell variant of anaplastic large cell lymphoma. Am J Hematol 2002 Mar;69(3): p200-4

Case 9

Donation: Dr. Resa Chase, MD, Jerry L. Pettis Memorial VA Medical Center, Loma Linda CA

History: 46 year old African American male with 20 year history of diffuse itchy painful nodules on arms, legs, ears and over joints. Submitted slide is from a 0.6 cm punch biopsy of the right arm.

Diagnosis: Erythema elevatum diutinum

Ayoub N; Charuel JL; Diemert MC; Barete S; Andre M; Fermand JP; Piette JC; Frances C. Anti-neutrophil cytoplasmic antibodies of IgA class in neutrophilic dermatoses with emphasis on erythema elevatum diutinum. Arch Dermatol 2004 Aug;140(8): p931-6

High WA; Hoang MP; Stevens K; Cockerell CJ. Late-stage nodular erythema elevatum diutinum. J Am Acad Dermatol 2003 Oct;49(4): p764-7

Wahl CE; Bouldin MB; Gibson LE. Erythema elevatum diutinum: clinical, histopathologic, and immunohistochemical characteristics of six patients. Am J Dermatopathol 2005 Oct;27(5): p397-400

Ayoub N; Tomb R. Neutrophilic dermatosis of the dorsal hands: a variant of erythema elevatum diutinum? Comment On: Comment On: RefSource:Arch Dermatol. 2002 Mar; 138(3):361-5/PMID:11902987 Arch Dermatol 2003 Jan;139(1): p102

Lisi S; Mussi A; Muscardin L; Carducci M. A case of erythema elevatum diutinum associated with antiphospholipid antibodies. J Am Acad Dermatol 2003 Nov;49(5): p963-4

Case 10

Donation: Dr. Evelyn Choo, MD, Loma Linda University Medical Center, Loma Linda, CA

History: 54 year old female with multiple hemorrhagic nodules measuring 0.3-0.6 cm and a "mass" in the left chest wall.

Diagnosis: Splenosis

Boudova L; Kazakov DV; Hes O; Zahalka M; Mukensnabl P; Kocova J; Michal M. Subcutaneous splenosis of the abdominal wall. Am J Dermatopathol 2006 Jun;28(3): p208-10

Young JT; Jaibaji MM; Vandermolen R. Splenosis: a remote consequence of traumatic splenectomy. J Am Coll Surg 2004 Sep;199(3): p500-1

Bizekis CS; Pua B; Glassman LR. Thoracic splenosis: mimicry of a neurogenic tumor. J Thorac Cardiovasc Surg 2003 May;125(5): p1155-6

Yeh CJ; Chuang WY; Kuo TT. Unusual subcutaneous splenosis occurring in a gunshot wound scar: pathology and immunohistochemical identification. Pathol Int 2006 Jun;56(6): p336-9

Prosch H; Oschatz E; Pertusini E; Mostbeck G. Diagnosis of thoracic splenosis by ferumoxides-enhanced magnetic resonance imaging. J Thorac Imaging 2006 Aug;21(3): p235-7