

**Name:** Test, Patient

**DOB:** 8/8/1980      **Age:** 28      **Sex:** M

**Office MRN:**                      **SSN:** 111-22-3333

**Collected:** 6/12/2009      **Received:** 6/12/2009      **Reported:** 00/00/00

**Case #:** SC09-1648      **Patient ID:** CPC-00001536

**Ordering Physician:** Richard J. Clatch, M.D., PhD.

**Client:** Consolidated Pathology Consultants(CPC)

28100 N. Ashley Circle, Suite 106

Libertyville, IL 60048      (847) 996-1030

**Copy to:**

## Surgical Pathology Report

### Final Diagnosis

**Bone marrow core biopsy and aspiration:**

**Normocellular bone marrow with good trilineage hematopoiesis but only trace iron stores and approximately 10% replacement by a low- to intermediate-grade CD5-positive non-Hodgkin's B-cell lymphoma, most consistent with either mantle cell lymphoma or an atypical chronic lymphocytic leukemia / small lymphocytic lymphoma (see comment).**

**Peripheral blood smear:**

**Peripheral blood with ver mild, very mildly macrocytic anemia, but no other diagnostic abnormality identified on smear preparation.**

**Special studies:**

**Immunophenotyping: Bone marrow with approximately 10% involvement by a CD5+ lambda-restricted, clonal lymphoproliferative disorder (see separate report attached below).**

**Cytogenetics: 46XY, normal male karyotype (see separate report attached below).**

**FISH for CML, CLL, and mantle cell lymphoma: All Normal.**  
(see separate report attached below).

### Comment

The pathologic and immunophenotyping findings in this case are diagnostic of a low- to intermediate-grade CD5-positive non-Hodgkin's B cell lymphoma involving the bone marrow at a low level at this time. The pattern of antigenicity is consistent with either mantle cell lymphoma or an atypical chronic lymphocytic leukemia / small lymphocytic lymphoma.

Richard J. Clatch, M.D., PhD. Electronically Signed 6/12/2009

CLINICAL IMPRESSION: ICD-9: 205.10, 204.10

### Gross Description

Right side bone marrow core biopsy and aspiration, touch preparations and clot sections; and peripheral blood smear:

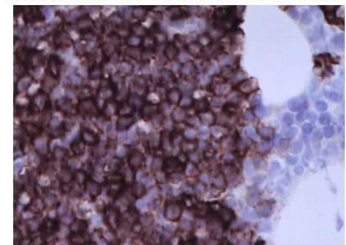
CPT Codes: 88305

ICD9 Codes: 185

**Automated CBC (performed at Dr's Office)**

WBC	4.5	Lymphocytes	34.0%
RBC	3.5	Neutrophils	60.2%
Hgb	11.9	Monocytes	6.0%
Hct	34.3%	Platelets	218
MCV	98.0	Reticulocytes	
MCH	34.1		
MCHC	34.8		
RDW	11.9%		

**Bone Marrow CD20 Immunostain**



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Peripheral Blood	Description
Red Blood Cells	Very mild, very mildly macrocytic, anemia. No other more significant anisopoikilocytosis.
Leukocytes	Normal in number. Correct distribution among subsets. Mature and morphologically normal. No circulating blasts. No significantly atypical lymphocytes.
Platelets	Normal in number, size, and granulation.
Other Findings	None significant.

Right Side BM Core / Clot	Description
Specimen Adequacy	Good. Fragmented but overall 1.0cm marrow present for evaluation.
Cellularity	30%. Normocellular for age.
M : E Ratio	3 : 1. Normal.
Myeloid Series	Complete maturation through to neutrophil stage. No significant left-shift or dysmyelopoiesis.
Erythroid Series	Complete maturation through to eosinophilic normoblast stage. No significant megaloblastoid change or dyserythropoiesis.
Megakaryocytes	Normal in number and morphology, scattered and not abnormally clustered throughout marrow.
Blasts	Present in normal low numbers. Estimated 2%.
Lymphocytes	Scattered lymphoid aggregates, some paratrabeular, some non-paratrabeular. Also, increased numbers of diffusely scattered lymphocytes. ~10%-20% of marrow overall, slight predominance of CD20+ B cells as compared with CD3+ T cells. Only minimal cytologic atypicality.
Plasma Cells	Estimated <5%. No aggregates. No atypia.
Fibrosis	No significant reticulin fibrosis.
Serous Atrophy	None identified.
Other Findings	None significant.

Right Side BM Aspirate / Touch	Description
Specimen Adequacy	Excellent cellularity and quality.
M : E Ratio	3 : 1. Normal.
Myeloid Series	Complete maturation through to neutrophil stage. No significant left-shift or dysmyelopoiesis.
Erythroid Series	Complete maturation through to eosinophilic normoblast stage. No significant megaloblastoid change or dyserythropoiesis.
Megakaryocytes	Normal in number and morphology, scattered and not abnormally clustered.
Blasts	Present in normal low numbers. Estimated 2%.
Lymphocytes	~10%-20% of overall cellularity. Only minimal cytologic atypicality.
Plasma Cells	Estimated <5%. No aggregates. No atypia.
Iron	Only trace iron stores. <1 on a scale of 0 to 4+. No ringed sideroblasts identified.
Other Findings	None significant.

Special Stains	Description
CD3 & CD20 (R Core & Clot)	Scattered lymphoid aggregates, some paratrabeular, some non-paratrabeular. Also, increased numbers of diffusely scattered lymphocytes. ~10%-20% of marrow overall, slight predominance of CD20+ B cells as compared with CD3+ T cells. Only minimal cytologic atypicality.
CD34 (R Core)	Estimated 2% blasts.
MPX & HgbA (R Core)	M : E ratio estimated at 3 : 1.
Reticulin (R Core)	No significant reticulin fibrosis.
Iron (Aspirate)	Only trace iron stores. <1 on a scale of 0 to 4+. No ringed sideroblasts identified.

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**Chromosome Analysis**

Patient Name:

Date of Birth:

Accession #: 0903786

Date Received: 03/19/2009

Date Reported: 03/21/2009 2 Day Final Result

Referring Physician: DAVID WANG, MD

Referring Facility: CONSOLIDATED-2 PATHOLOGY CONSULTANTS

Tissue Type: BONE MARROW

Reason for Referral: CHRONIC MYELOID LEUKEMIA /  
CHRONIC LYMPHOID LEUKEMIA

Band Type: GTG/FISH Band Level:

Number of Cells Analyzed: 20/1000

Number of Cells Counted: 20

Modal Chromosome Number: 46

Number of Cells Karyotyped: 3

Karyotype: 46,XY[20]

Impression: NORMAL MALE KARYOTYPE AND FISH

Comments:

FISH Karyotypes:

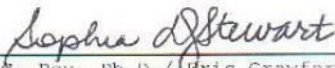
1. nuc ish 9q34{ABL1x2},22q11.2{BCRx2} -Normal
2. nuc ish 11q22.3{ATMx2}[200] -Normal
3. nuc ish 12cen{D12Z3x2}[200] -Normal
4. nuc ish 13q14.3{D13S319x2},13q34{LAMP1x2}[200] -Normal
5. nuc ish 8cen{D8Z2x2},8q24{MYCx2},14q32{IGHx2}[200] -Normal
6. nuc ish 17p13.1{TP53x2},17cen{D17Z1x2}[200]

(No. of probes = 9).

These tests were developed by Vysis and their performance characteristics determined by Genetics Associates, Inc., as required by the CLIA 88 regulations. They have not been cleared or approved by the U.S. Food and Drug Administration.

PT# SC09-184

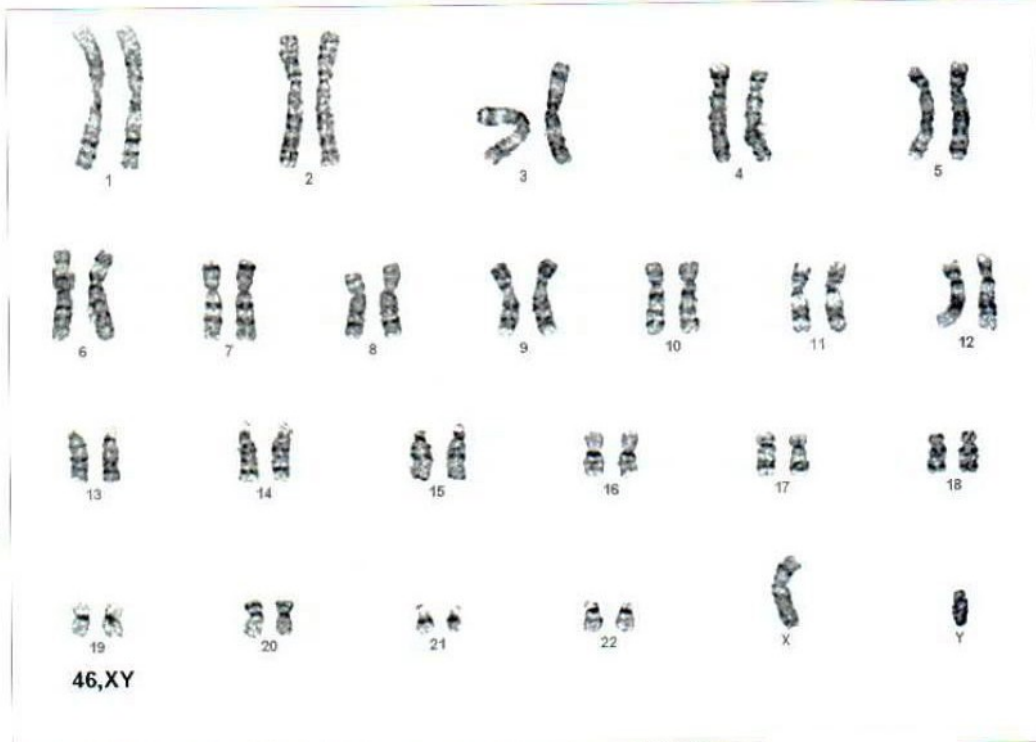
Technologist(s): AW/CC/CR/TG

  
V.G. Dev, Ph.D. / Eric Crawford, Ph.D. /  
Sophia Dwanna Stewart, Ph.D.  
Clinical Cytogeneticists  
Diplomates, American Board of Medical Genetics  
Fellows, American College of Medical Genetics

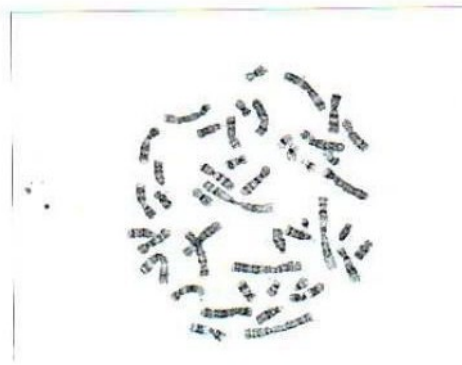
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Case: 0903786 Slide: 1-1 Cell: 7 Patient name:



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