

Patient: [REDACTED]
DOB: [REDACTED] Age: [REDACTED] Gender: [REDACTED]
Patient Identifiers: [REDACTED]
Visit Number (FIN): [REDACTED]

Client: [REDACTED]
Physician: [REDACTED]

ARUP Test Code: 2002294
Collection Date: 10/25/2016
Received in lab: 10/26/2016
Completion Date: 11/03/2016

Interpretation

Specimen Received
Specimen Type: Bone Marrow, (CD138+)
Reason for Referral: Multiple Myeloma Panel
Test Performed: FISH MM Panel

ABNORMAL FISH RESULTS

9q34 (ASS1): gain present
11q13 (CCND1): gain present
15q24 (PML): gain present

NORMAL FISH RESULTS

1q21 (CKS1B): gain not detected
9q34 (ASS1): gain not detected
t(11;14)(q13;q32) (CCND1;IGH): translocation not detected
14q32 (IGH): rearrangement not detected
17p13 (TP53): deletion not detected

DIAGNOSTIC IMPRESSION:

Fluorescence in situ hybridization (FISH) analysis was performed with the MM panel probes: CKS1B, TP53 (Cytocell), ASS1, IGH, IGH/CCND1 XT, and PML (Abbott Molecular) on CD138+ sorted cells (STEMCELL Technologies, Inc.). 200 interphase cells were scored for each probe combination.

This analysis showed evidence of:
- 3 copies of the ASS1 locus at 9q34 in 170/200 (85 percent) cells scored.
- 4-5 copies of the CCND1 locus at 11q13 in 178/200 (89 percent) cells scored.
- 3 copies of the PML locus at 15q24 in 193/200 (96.5 percent) cells scored.

FISH analysis with the remaining MM panel probes showed normal results with no evidence of gain of CKS1B at 1q, IGH rearrangement or a TP53 deletion.

Additional signals for ASS1, CCND1, PML is suggestive of additional copies of chromosomes 9, 11 and 15. In the context of lymphoid disease, especially multiple myeloma, these are usually found as part of a hyperdiploid clone. In multiple myeloma, hyperdiploidy is usually associated with a favorable prognosis.

Please correlate these results with clinical and other laboratory findings in this patient.



Patient: [REDACTED]
ARUP Accession: 16-299-103606

Multiple Myeloma Panel by FISH

Patient: [REDACTED] | Date of Birth: [REDACTED] | Gender: [REDACTED] | Physician: [REDACTED]
Patient Identifiers: [REDACTED] | Visit Number (FIN): [REDACTED]

Reference:

Swerdlow SH, Campo E, Harris NL, Jaffe ES, Pileri SA, Stein H, Thiele J, Vardiman JW. (Eds.): WHO classification of Tumours of Haematopoietic and Lymphoid Tissues. IARC: Lyon 2008.

ISCN:

nuc ish(CKS1Bx2,TP53x2)[200],
(ASS1x3)[170/200],
(CCND1x4-5)[178/200],
(IGHx2)[200],
(PMLx3)[193/200]

NOTE: Chromosome analysis was performed on this sample and reported under ARUP accession #(16-299-103607). Chromosome results were NORMAL. It is likely that the abnormal clone was not represented in the metaphase cell population. Failure of an abnormal clonal population to grow in culture either due to low proliferation rate or stromal dependency is not unusual in multiple myeloma.

This result has been reviewed and approved by [REDACTED],
Ph.D., FACMG
Electronic Signature

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement A: aruplab.com/CS



Patient: [REDACTED]
ARUP Accession: 16-299-103606