Patient ID	Patient Name		Birth Date	Gender	Age
SA00091489	TESTING, MICHELE B		1973-07-05	F	43
Order Number	**Client Order Number**	**Ordering Physician**	**Report Notes**		
SA00091489	SA00091489	CLIENT, CLIENT			
Account Information		**Collected**			
C7028846 DLMP Rochester		31 May 2017 00:00			

REVISED REPORT — ADDENDUM INCLUDED

Renal Pathology

Case Number KR-17-933

Interpretation

MCR

FINAL DIAGNOSIS

Kidney transplant, needle biopsy: Patchy acute tubular injury with diffusely positive C4d staining in peritubular capillaries, consistent with acute antibody mediated rejection. See comment.

Electron microscopy will be reported as an addendum.

COMMENT

While none of the other morphologic features of acute antibody mediated rejection are present, in the setting of acute renal allograft dysfunction with rising donor specific antibody levels and a diffusely positive C4d stain in peritubular capillaries, the findings are compatible with a component of acute antibody mediated rejection. Clinical correlation is needed.

MICROSCOPIC DESCRIPTION

LIGHT MICROSCOPY: Tissue sections are stained with HandE, PAS, Masson trichrome and Jones methenamine silver to aid in the morphological interpretation. The sample examined by light microscopy consists of a single piece of renal cortex with a small amount of medulla. Up to ten glomeruli are present for evaluation, three of which are globally sclerotic. The intact glomeruli appear nonproliferative and do not show mesangial expansion or inflammatory cell infiltrates. No thrombi are seen and no double contouring is present.

TUBULES AND INTERSTITIUM: There is a focal minimal mononuclear cell infiltrate present at the cortical medullary junction without associated tubulitis. Very mild fibrosis is seen. Patchy tubules show attenuation of the cytoplasm with a rare tubule showing sloughage of degenerative tubular cells. No increase in peritubular capillary inflammatory cells is noted.

VESSELS: The arteries and arterioles appear unremarkable. No thrombosis or intimal arteritis is present.

IMMUNOFLUORESCENT HISTOLOGY: Three glomeruli are present for evaluation, none of which appear globally sclerotic. There is 1+ linear basement membrane staining seen with IgG. Segmental trace mesangial staining is seen with IgM. C3 highlights a few arterioles and albumin also shows 1+ linear tubular basement membrane positivity. A few small intratubular casts stain with IgA and stain equally with kappa and lambda light chains. No significant staining is seen with C1q or fibrinogen. The C4d stain shows variable 1–2+ positivity in the glomeruli and there is a diffuse 2–3+ positivity in peritubular capillaries.

CLINICAL INFORMATION

The patient is a 21-year-old male who received a living related donor kidney transplant from his father approximately two weeks ago. He was known to have preexisting donor specific antibodies which had a negative crossmatch and a transplant was not ABO-incompatible. He had pretransplant conditioning with bortezomib. His creatinine recently rose from 2.1 to 2.4 and then up to 2.7 mg/dL associated with an increase in the level of his donor specific antibodies. He is already being treated with thymoglobulin and steroids. Urine protein to creatinine ratio is normal.

Performing Site Legend

Code	Laboratory	Address	Lab Director	CLIA Certificate
MCR	Mayo Clinic Laboratories - Rochester Main Campus	200 First Street SW, Rochester, MN 55905	William G. Morice M.D. Ph.D	24D0404292

MAYO CLINIC LABORATORIES

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REVISED REPORT — ADDENDUM INCLUDED

Report Electronically Signed By MCR

Valerie M. Straubmuller, SCT(ASCP)

I verify that I have examined all relevant slides/materials for the specimen(s) and rendered or confirmed the diagnosis.

Gross Description MCR

Light Microscopy: Received in formalin for light microscopy: 1 piece(s) of tissue measuring 1.0 x 0.04 cm. Submitted in total in block(s) A3. (GEJ)

Electron Microscopy: Received in glutaraldehyde/Trumps for electron microscopy: 1 piece(s) of tissue measuring 0.4 x 0.04 cm. (GEJ)

Immunofluorescence: Received in Zeus for immunofluorescence: 1 piece(s) of tissue measuring 0.7 x 0.04 cm. Submitted in total for immunofluorescence. (GEJ)

Material Received MCR

A. K-17–2468: Right kidney

1 - Formalin 10% wet tissue
1 - Zeus wet tissue
1 - Gluta/Trumps wet tissue

Disclaimer MCR

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

Received: 01 Jun 2017 10:16 **Reported:** 13 Jun 2017 14:05

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REVISED REPORT — ADDENDUM INCLUDED

Addendum Report

Case Number KR-17-933

REVISED **Addendum** (1) MCR

ELECTRON MICROSCOPY: Survey sections from the three blocks of tissue submitted for electron microscopic examination contain a total of 6 glomeruli, none of which are sclerotic. The glomeruli appear non-proliferative. Block 1 and 2, containing 4 of the glomeruli, are then ultrathin sectioned and examined by transmission electron microscopy. Normal cellularity and normal mesangial regions are confirmed. No deposits are seen and the glomerular basement membranes show no ultrastructural abnormalities. There is severe diffuse and global foot process effacement noted with associated segmental microvillous transformation. Examination of the tubulointerstitial compartment shows minimal fibrosis and no tubular basement membrane deposits.

Impression: Kidney, needle biopsy: Minimal change disease. See comment.

Signed by WADE FIEDLER 6/13/2017 2:05 PM

Laboratory Notes

(1) This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

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