

**9th ANNUAL DEPARTMENT OF PATHOLOGY YOUNG INVESTIGATORS' DAY
POSTER SESSION**

**Thursday, April 5th, 2007
TURNER CONCOURSE
REGISTRATION FORM**

**E-mail COMPLETED Registration form and abstract to:
Stacey Morgan (smorgan9@jhmi.edu) on or before
Friday, March 16th, 2007**

**If you have questions or problems regarding your submission, please contact Stacey
Morgan via e-mail (smorgan9@jhmi.edu)**

Applicant's Name: Basim Soliman Mohammed Degree: MD

Applicant's Division: Renal Pathology

Faculty Preceptor: Serena Bagnasco, MD
(Must hold a primary appointment in Pathology)

Appointment Category: House Staff Clin Fellow Research Fellow
 Medical Student Graduate Student (Program: _____)

Register for: Clinical Research Translational Research Basic Research

Full Poster Title * **“CD20 - positive lymphocyte infiltrates in renal allograft biopsies with acute cell-mediated rejection are not associated with worse graft survival “**

Where has the work been presented?

Meeting Name USCAP 07 – San Diego _____

Meeting Date March 26th, 2007 _____

Not Previously Presented _____

Where is this work being published?

Journal Name, Volume, Page, Date _____

In Preparation _____

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***INCLUDE A ONE-PAGE ABSTRACT (including title and all authors) OF THE WORK YOU WILL BE PRESENTING**

“CD20 - positive lymphocyte infiltrates in renal allograft biopsies with acute cell-mediated rejection are not associated with worse graft survival”

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Introduction: An association of CD20 positive infiltrates in renal allograft biopsies and poor clinical outcome of acute rejection was suggested in 2003 by Sarwal et al. Few studies subsequently supported this possibility, using small cohorts of patients and lacking uniform, standardized criteria to define CD20 positive infiltrates. **Methods:** We examined rejection outcome and graft survival in 61 adult patients with acute cellular rejection Banff type I or II (ARI and ARII), with or without CD20 positive infiltrates in 78 allograft biopsies, performed in Johns Hopkins University Hospital (JHUP) from 1999 to 2001. Patients were 21 years of age or older, received a renal allograft transplant from deceased or living donor, had biopsy-proven acute cellular rejection type I or II within one year of transplant, and received follow up for 4 years or longer at the JHUP. Clinical information collected included: Panel-reactive antibody (PRA) screening for IgG, HLA class I and/or class II specific antibodies, delayed graft function (DGF), serum creatinine (mg/dL), and estimated GFR at rejection, 1, 3, 6, 12 months, and 2, 3, 4 years after biopsy, or later. Last serum creatinine values at follow up were recorded for failed grafts. Continuous variables with normal distribution were analyzed by un-paired, two-tailed Student's T test, with $P < 0.05$ as indicative of significant difference. Mann-Whitney test was used for data with skewed distribution. Chi square test was used for categorical variables. Graft survival was analyzed with the Kaplan-Meier method. **Results:** Of the total 78 biopsies selected, 40 biopsies showed ARI and 38 ARII, 29% showed clusters with more than 100 CD20 positive cells, 10% with more than 200 cells, and 5% with more than 275 cells. CD20 positive (>100 or >200 CD20 cells) and CD20 negative patients, did not show significant difference in serum creatinine or estimated GFR at rejection, or at 1, 3, 6, 12 months, plus 3 years follow-up after rejection. Cumulative graft survival was also not significantly different between CD20 positive, and CD20 negative patients: 72% and 61% respectively ($P = 0.77$, CD20 > 100); 85% and 62% respectively ($P = 0.41$, CD20 > 200 cells). Similar graft loss (28% and 24%), and death with functioning graft: (8% and 5%) were observed in CD20-positive and CD20-negative patients, respectively. **Conclusion:** We conclude that CD20 rich infiltrates in allograft biopsies with acute cellular rejection are not associated with worse outcome.