

# DETECTION OF CD-20-POSITIVE INFILTRATES IN RENAL BIOPSIES WITH ACUTE ALLOGRAFT REJECTION: INVESTIGATION OF THE PROGNOSTIC VALUE

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## OBJECTIVES

We set to identify CD20 positive cell infiltrates in ABMR, and if there is any relationship between their presence, and peritubular capillaries C4d expression as well as other histological parameters in order to see if there is a role of CD20 in acute antibody mediated rejection (ABMR) and if there is a subset of patients who could benefit from early treatment by anti CD20 monoclonal antibody

## METHODS

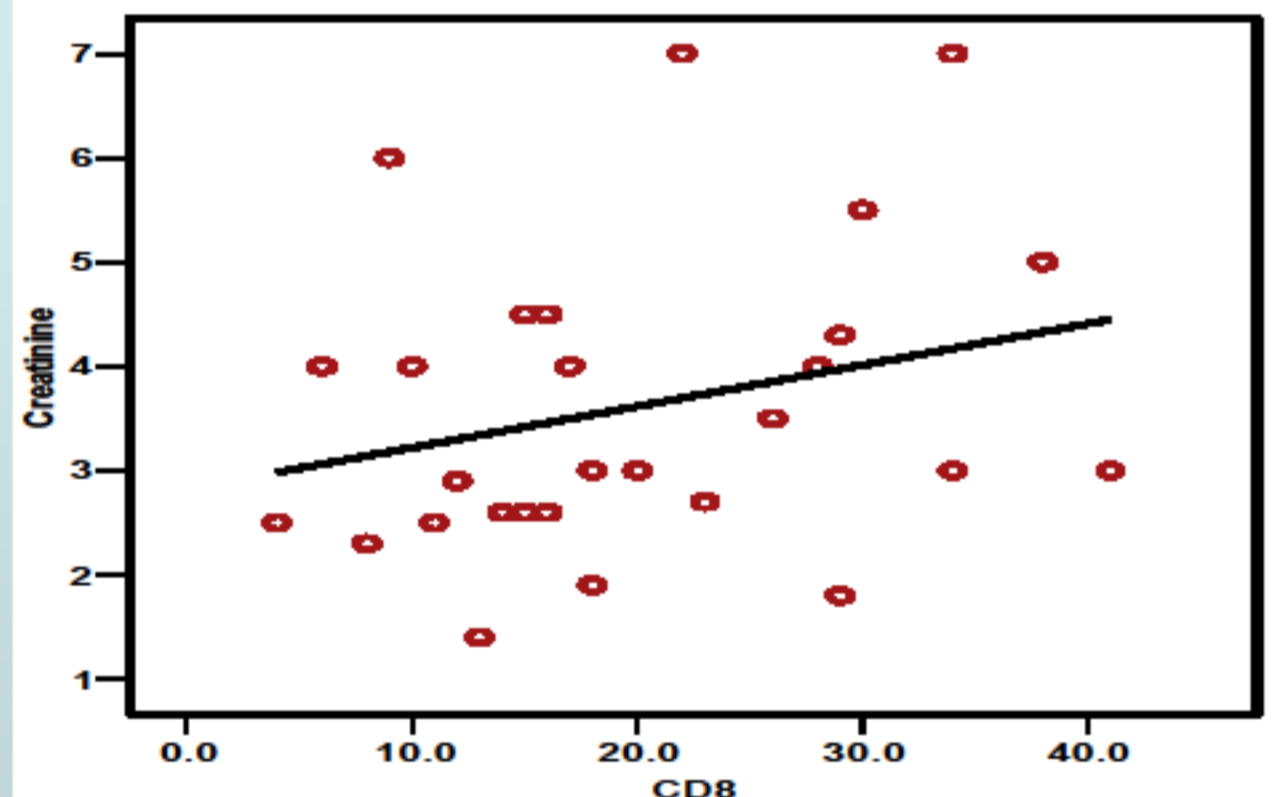
We reviewed 90 renal allograft tissue biopsies from different transplant centers received between 2010 and 2011, including 13 patients who experienced acute antibody mediated rejection (ABMR). We also identified a matched group of 15 patients with acute T-cell mediated rejection (TCMR) diagnosed as Banff type I and Type II rejection to serve as controls. All the 28 cases were stained by anti CD 20 and anti CD 8 antibodies.

## RESULTS

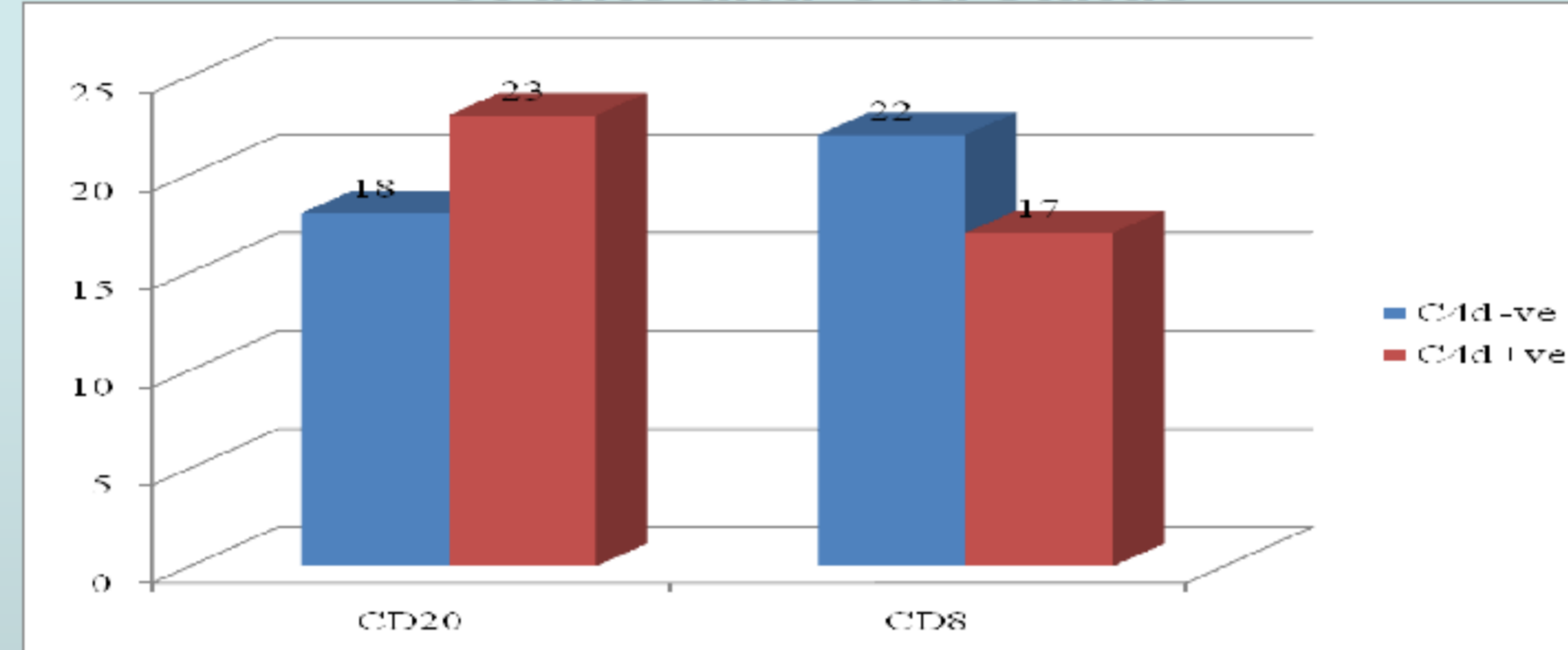
We found no statistically significant difference in CD 20 and CD 8 cell counts between the ABMR and TCMR groups. The presence of CD 20 and CD8 positive cells didn't correlate with C4d expression. We noticed a positive correlation between the numbers of CD20 positive cells and the grade/ severity of rejection, as well as with the degree of intimal arteritis (v score) but with no other histological or clinical parameter.

## GRAPHS

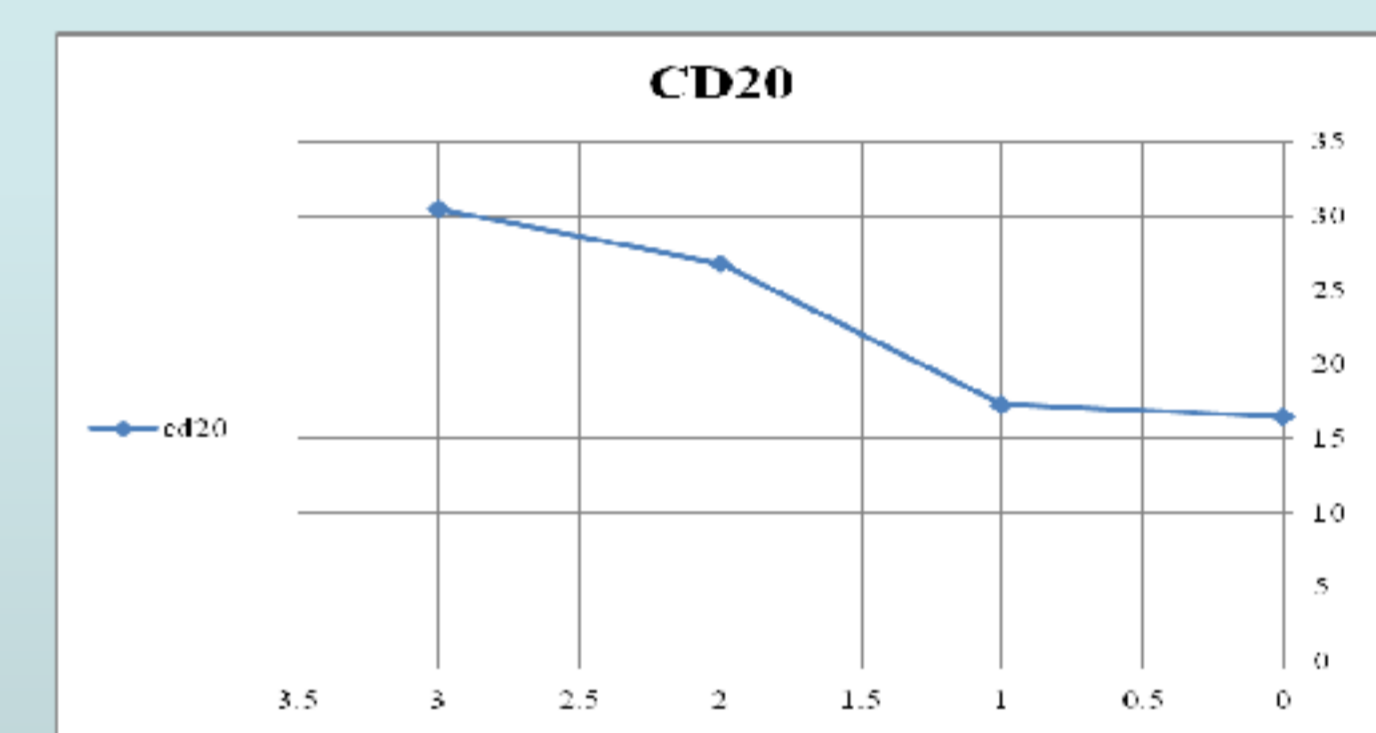
CD8 counts and serum creatinine



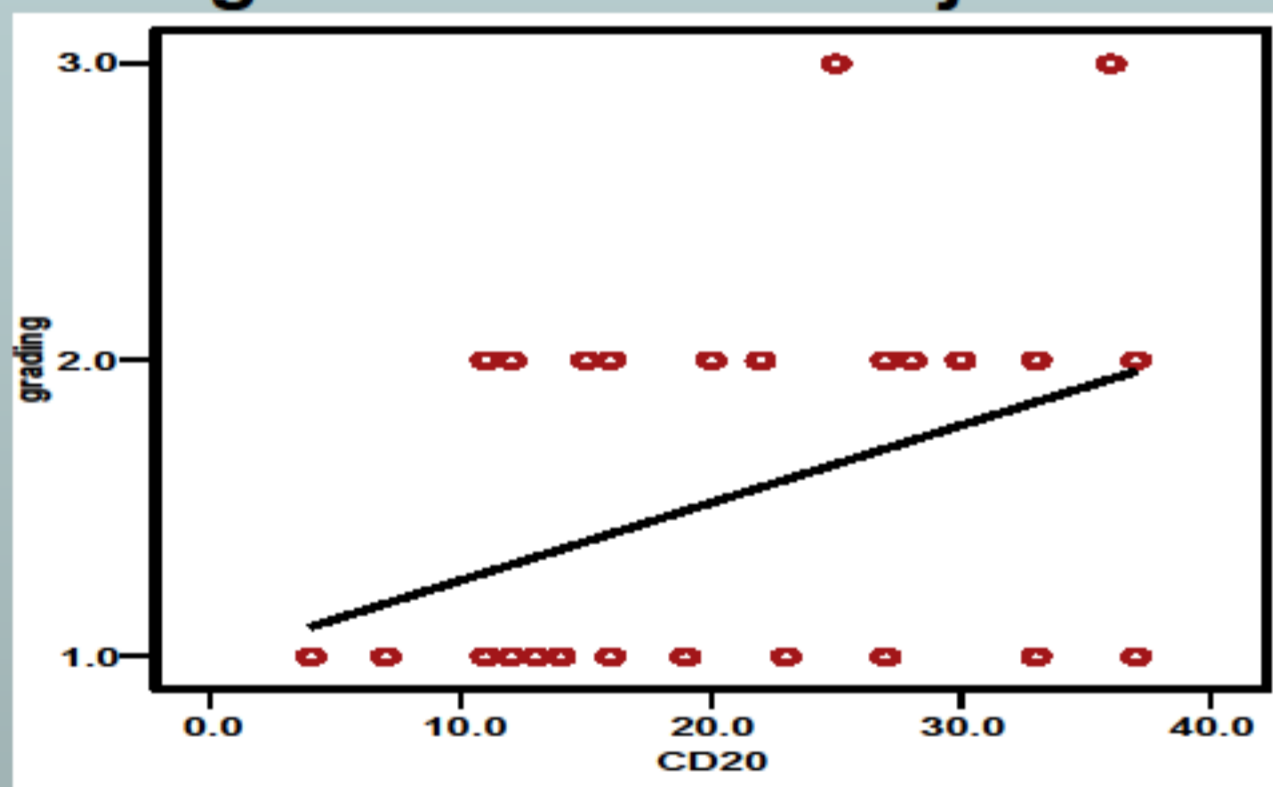
CD 20 and CD8 positive cell counts and C4d status



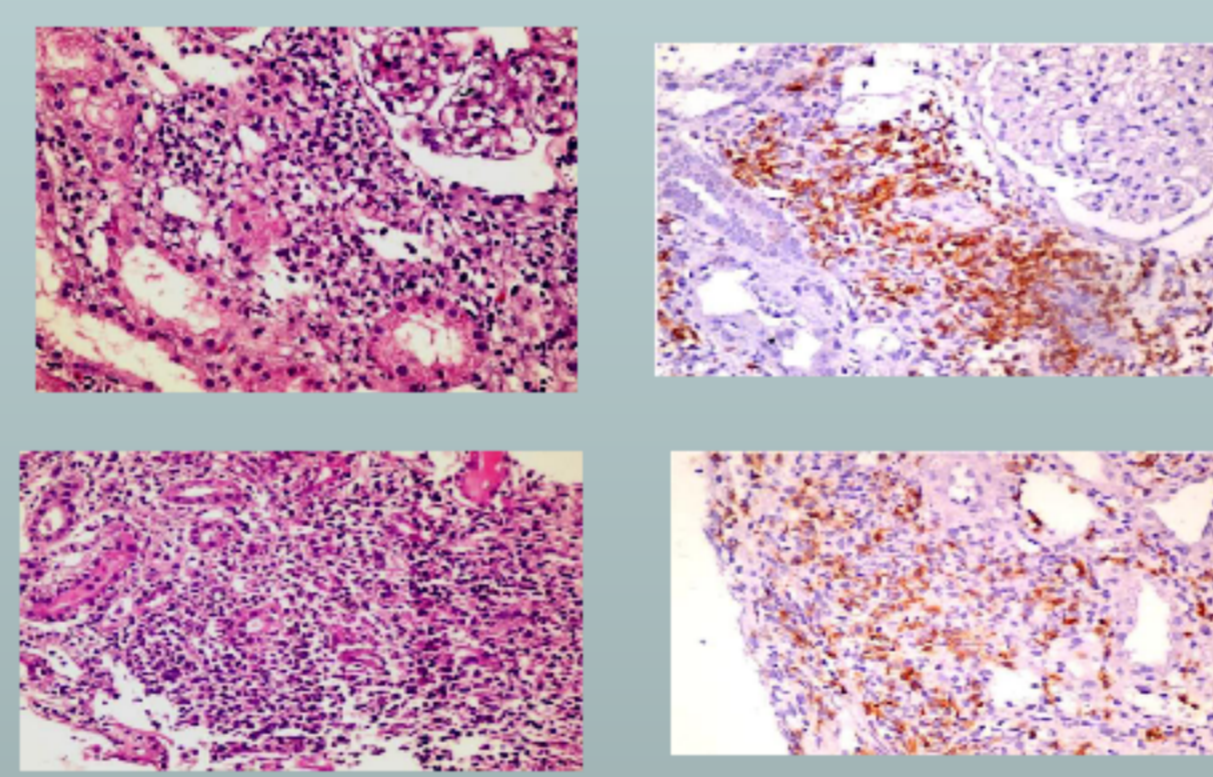
CD20 and Intimal arteritis (v) score



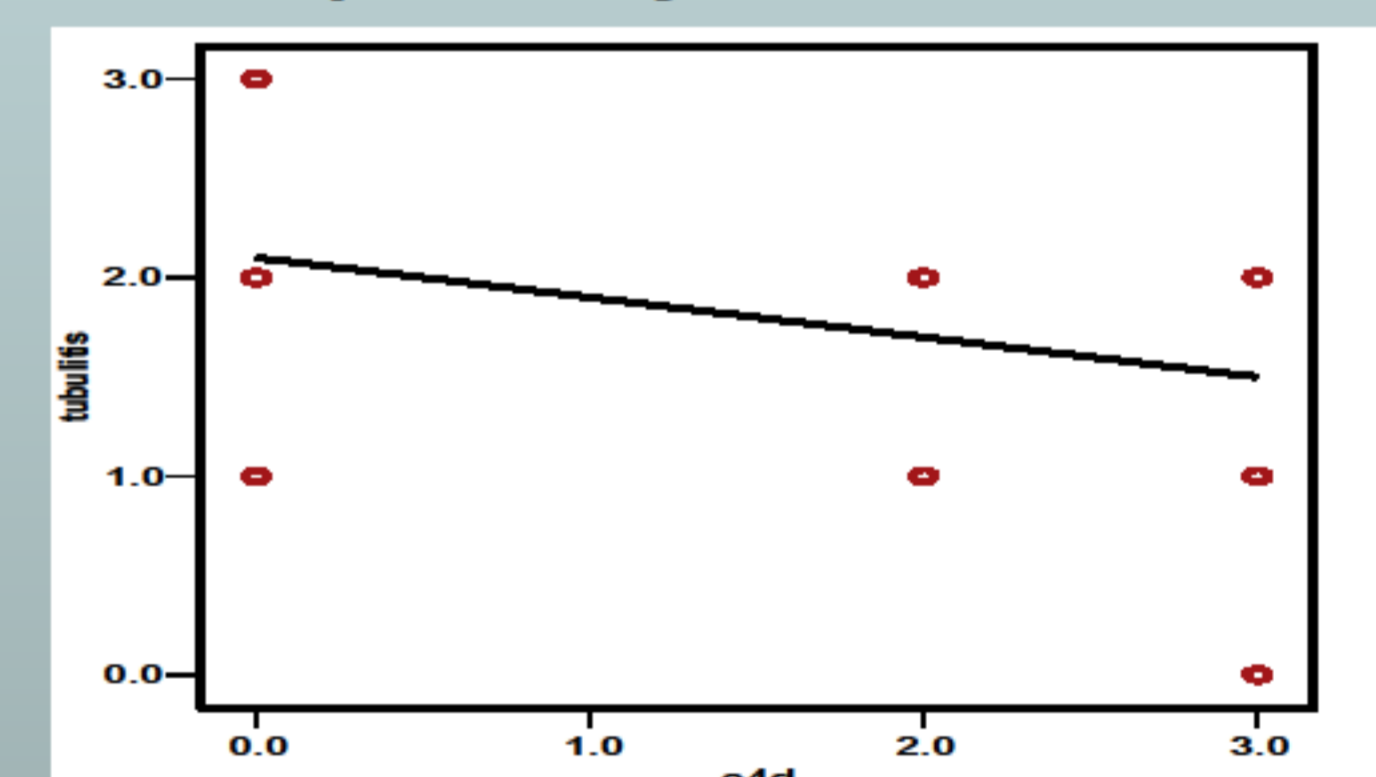
Correlation between CD20 cell counts and grade of TCMR rejection



CD20 positive cells



Correlation between C4d positivity and tubulitis



## CONCLUSIONS

Our findings suggest that there is a possible relation between the presence of CD20 positive lymphocytic infiltrates and a more severe histological form of rejection, but failed to establish a relationship between their actual presence in the interstitial infiltrate and the 2 distinct mechanisms behind graft rejection.

## REFERENCES:

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- Hippen BE, DeMattos A, Cook WJ, Kew CE, Gaston RS (2005). Association of Cd20 +ve infiltrates with poorer clinical outcomes in acute cellular rejection of renal allografts. Am J Transplantation; 5: 2248-2252

