Peritubular Capillaritis in the absence of C4D in In Hpersensitised Patient . Does it indicates AMR ?

Masutani et al tried to answer this question in case report published in Clinical Transplant ,2009 under the title :
Subclinical peritubular capillaritis in serial graft biopsies in cadaveric kidney transplant recipient with pre-transplant anti-HLA antibodies

In this case a 63-yr-old Japanese woman on 18-yr hemodialysis (HD) program underwent cadaveric kidney transplantation from non-heart beating donor. Pre-transplant lymphocytotoxicity test was negative, but flow cytometric cross-match and flow-cytometric panel reactive antibody (PRA) screening tests were positive. Flow-PRA single-antigen test revealed several anti-HLA antibodies including donor-specific antibody (DSA). She was treated with plasma exchange (PEX) and rituximab to prevent antibodymediated rejection (AMR). Urinary output increased from post-operative day (POD) 5 and HD was discontinued from POD8. Graft biopsy performed on POD11 showed severe peritubular capillaritis (PTCitis), numerous polymorphonuclear neutrophils (PMNs), and moderate glomerulitis.
Although C4d immunostaining on PTC was negative, the case was diagnosed as subclinical AMR based on the presence of pre-transplant DSA and PTCitis with predominant PMNs. The patient was treated with additional PEX and rituximab, which increased urinary output and reduced serum creatinine (sCr). Graft biopsy repeated on POD39 showed persistent severe PTCitis, moderate interstitial infiltration, and mild tubulitis. C4d on PTC was negative again. The patient was discharged from the hospital on POD40. During the seven months follow-up at the outpatient clinic, the sCr level has shown a slight increase. In this case, the patient had DSA, which can be detected only by flow-PRA. In both graft biopsies, C4d on PTC was negative despite the presence of severe PTCitis, and thus the diagnosis of AMR could not be established. However, the significance of subclinical PTCitis is reported perhaps as an early marker for chronic AMR and to emphasize the importance of close follow-up.
The authors ***described a*** persistent subclinical PTCitis in a recipient with pre-operative anti-HLA antibody. Although in their findings the biopsy did not fulfill the criteria of both TMR and AMR, persistent PTCitis could be considered a weak

immunological reaction that can ultimately lead to chronic graft injury. The authors suggested in such cases the following :

1- management at an early stage,
2- Careful follow-up ,and
3- repeated biopsies

Masutani K, Kitada H, Noguchi H, Tsuruya K, Katafuchi R, Tanaka M,Iida M. Clin Transplant 2009: 23 (Suppl. 20): 34–38.