A PHASE II EXPLORATORY STUDY TO DETERMINE THE SAFETY AND STUDY THE IMMUNOMODULATORY FUNCTIONS OF INDUCTION THERAPY WITH CAMPATH-1H®, COMBINED WITH CHRONIC IMMUNOSUPPRESSION WITH MMF AND SIROLIMUS: A STUDY OF THE COOPERATIVE CLINICAL TRIALS IN TRANSPLANTATION

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**Body:**

**Background:** This trial was designed to evaluate the safety of Campath-1H® post-transplantation when given as part of a multitherapy regimen to prevent graft loss and death and to avoid steroids and chronic use of calcineurin inhibitors. A secondary objective was to gather safety information about the combination of Campath-1H® with short term Tacrolimus followed by Sirolimus, and MMF in low risk pediatric renal allograft recipients.

**Methods:** Unsensitized pediatric recipients of a first LRD kidney transplant received 2 doses of Campath-1H® (0.3 mg/kg), 1 day pre and 1 day post-transplant. Subjects received tacrolimus and MMF immediately post-transplant until week 8-12 when they had protocol renal biopsy and were changed to sirolimus and MMF if rejection free. The planned 35 subjects were enrolled. This report describes the clinical outcomes of the 35 subjects with 2 years of follow-up: 22 completed the full protocol; another 10 had reduced follow up data; 3 subjects terminated the study early – 1 lost to follow up (13m), 1 non-adherence (15m), 1 graft failure from recurrent FSGS (19 m).

**Results:** The mean subject age is 12.6 (± 5.4) yrs; 57.1% are female and 74.3% Caucasian. At transplant, 26/35 were CMV and 24/35 were EBV, seronegative. Protocol therapy was discontinued in 13/35 subjects due to: rejection (3), graft failure (2), adverse events (4), investigator decision (8), unrelated (3). There were two graft losses one due to recurrent FSGS and one due to medication non-adherence. Acute rejection (AR) occurred in 6/35 subjects (17%, 1 was subclinical). AR episodes were cellular (5) and humoral (2). One subject had 2 AR episodes. One or more hospitalizations occurred in 24/35 subjects: 9/35 for suspected rejection; 10/35 for bacterial infection; 6/35 for viral infection. There were no cases of PTLD and no deaths. Leukopenia occurred in 22/35 (66.7%), anemia 15/35 (45.5%), neutropenia 14/35 (42.4%) and diarrhea 11/35 (33.3%). Serum [Cr] for the 22 subjects was, at 3m 0.83 mg/dL (± 0.33), at 6m 0.85 mg/dL (± 0.36), at 12m 0.90 mg/dL (± 0.37) and at 24m 0.94 mg/dL (± 0.35).

**Conclusions:** Campath-1H® as induction therapy can be used safely and effectively in low risk pediatric renal allograft recipients. Its use permits steroid avoidance and circumvents chronic use of calcineurin inhibitors.