

Phase 1 Trial of Adalimumab for FSGS: Report of the FONT Study

Primary FSGS is one of the most common causes of non diabetic kidney disease and also one of the most difficult to treat due to the difficulty with initiating and maintaining remission. The standard of treatment has been the use of high doses of steroids given either daily or every other day. While these medications have been known to result in significant toxicity and are not without negative side effects, the lack of treatment predominantly progresses to end stage kidney disease (ESKD). Unfortunately, a number of patients with primary FSGS are resistant to current treatments and thus at high risk of progressing to ESKD.

While treatment options are limited for patients affected by FSGS, hope may be on the horizon with a category of drugs called antifibrotics. These medications attempt to decrease or prevent the development of fibrosis (scarring), which would help to preserve kidney function, decrease the level of proteinuria (leakage of protein into the urine) and delay or prevent progression to ESKD.

Recently, in the *American Journal of Kidney Diseases*, the results of a phase I clinical trial was published evaluating the safety and tolerability of adalimumab in patients diagnosed with steroid resistant FSGS. Adalimumab inhibits tumor necrosis factor (TNF), one of the major hormones produced by cells that induce inflammation. Inhibition of TNF is a possible pathway for treating FSGS, a promising strategy to slow or halt the decline in kidney function.

Ten patients diagnosed with steroid resistant FSGS were evaluated and given adalimumab every 14 days for 16 weeks, a total of 9 doses. Evaluation of glomerular filtration rate, proteinuria (leakage of protein into the urine), and pharmacokinetic assessment was completed. Adalimumab was found to be well tolerated with no serious adverse events or complications that could be attributed to the drug. Proteinuria decreased by at least 50% in 4 of the 10 treated patients.

There is a desperate need to find medications for the treatment of steroid resistant FSGS. This study provides a rationale to evaluate the efficacy of adalimumab as an antifibrotic agent for resistant FSGS in phase 2 and 3 clinical trials. The FONT II study will look at the efficacy of adalimumab in patients with steroid resistant FSGS. For more information or if you would like to enroll in the FONT II study please visit, <http://clinicaltrials.gov/ct2/show/NCT00814255> or contact Dr.

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1. [Joy MS](#), [Gipson DS](#), [Powell L](#), [Machardy J](#), [Jennette JC](#), [Vento S](#), [Pan C](#), [Savin V](#), [Eddy A](#), [Fogo AB](#), [Kopp JB](#), [Cattran D](#), [Trachtman H](#). Phase 1 Trial of Adalimumab in Focal Segmental Glomerulosclerosis (FSGS): II. Report of the FONT (Novel Therapies for Resistant FSGS) Study Group. AJKD 2010, January; 55(1): 55-60.