

## **Exploring the growing numbers of FSGS nationally**

There has been increasing evidence of a change in the pattern of glomerular diseases, specifically FSGS, both nationally and internationally<sup>1</sup>. Studies of biopsied patients show an increasing incidence of FSGS in both adults and children<sup>2</sup>. This increase has been found regardless of race, in the African American community, Hispanic community as well as white individuals<sup>1</sup>.

Following a review of a kidney biopsy database over a 20 year period between 1974 and 1993, D'Agati and colleagues noted a seven fold-increase in the incidence of FSGS in their population<sup>3</sup>. Similarly, a 20 year study of renal biopsies by Dr. Haas and colleagues found a three-fold increase in the incidence of FSGS among adults<sup>4</sup>. A thirty year review of renal biopsies from Minnesota found a 13-fold increase in the incidence of FSGS between 1973 to 1983 and 1994 to 2003<sup>1</sup>. In this study the authors stated that there was a 2.1-fold increase in the number of annual biopsies performed<sup>1</sup> but that still does not account for the large increase in cases of FSGS.

Similar results have been seen in pediatric populations. A Canadian study of Caucasian children found the incidence of FSGS to have increased from 0.37 to 0.94 per 100,000 per year between 1985 and 2002<sup>5</sup>. A separate study of North American children found an increase of FSGS when reviewing biopsies, from 23% in 1990 to 47% in later years. Additionally, in a study of biopsies performed on children in the Southwestern United States an increase from 11% between 1985 and 1995 to 25% in the following decade was noted<sup>6</sup>.

In addition to the increase in the incidence of FSGS in the US there has been evidence of changes in end stage renal disease (ESRD) as well. A 2004 study analyzing ESRD in the US over a 21 year period, has shown that ESRD as a result of FSGS has increased 11-fold, from 0.2% in 1980 to 2.3% in 2000<sup>7</sup>. In the US, idiopathic FSGS is the most common cause of ESRD as a result of primary glomerular disease detected on renal biopsy<sup>8</sup>.

The reason for this increase remains unknown and while some of this may be due to changes in the diagnostic approach, biopsy practices as well as changes in how the disease is classified, it remains likely that there is a real increase in the frequency of FSGS. Different factors may provide insight into this increase, such



as an increase in the frequency of obesity in the population or an unidentified environmental factor. As research advances and we become more aware of changes in this population we hope to gain a better understanding for this increase to be able to offer better treatment options.

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