

The propensity of patients with Fabry Disease to develop severe kidney disease that will need dialysis depends mainly on two issues. One is gender. So classic males, most of them will develop severe kidney disease. However, severe kidney disease is 20-fold-- 20-fold-- less frequent in females. So it is 20-fold less frequent that a classic Fabry female will eventually need dialysis. However, females that do need dialysis, they will do so at the same age of males.

The second main driver of the propensity to develop severe kidney disease is the severity of the mutation. So classic Fabry males, and some females, will develop the severe kidney disease, eventually needing dialysis at a mean age of 40. Non-classic mutations, later onset mutations, very frequently, they do not develop severe kidney disease at all. So quite frequently, these individuals are in their 60s and 70s, and they have glomerular filtration rates over 60 ml per min, their surface area.

So two factors influence their risk of developing severe kidney disease. One is gender. The second is the severity of the mutation. They may have another genetic modifiers, another environmental modifiers, but these are less well-characterized. But if the patient is a smoker, this will give rise to a more severe kidney disease. If the patient has, on top of Fabry Disease, diabetes or any other disease that injures the kidneys, well, it's probably kidney disease will be more severe. But the main drivers are gender and severity of the mutation.