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Lifetime risk of kidney failure is 0.5% to 1.5% in Europe

The lifetime risk of kidney failure is between 0.5% and 1.5% on average for people in Europe according to a study by Doctor Van den Brand and colleagues presented at the ERA-EDTA Congress in Vienna today. There are differences in risk across Europe. For example, in Finland the risk is lowest, 0.44% for women and 0.88% for men, whereas it is highest in Belgium, 1.14% in women and 2.05% in men. In Austria, the host of the 2016 ERA-EDTA Congress, the risk was 0.84% for women and 1.60% for men. This variation between the countries may be due to differences in the organization of healthcare.

The researchers were able to estimate the lifetime risk of kidney failure by using data of the ERA-EDTA Registry. The ERA-EDTA Registry registers the number of people who need therapy to replace their kidney function. Using this data Van den Brand and colleagues determined how many people have kidney failure in ten European countries. By combining these numbers with population census data provided by EuroStat, they were able to estimate the average risk of kidney failure during a person's entire life. These results are important to people who want to donate their kidney to save a loved one. A recent American study estimated the lifetime risk of kidney failure in the USA. The researchers used the lifetime risk estimates to create a risk prediction of kidney failure for living kidney donors. Results from the study by Van den Brand and colleagues indicate that this risk prediction for American people cannot be used in Europe. The average lifetime risk of kidney failure was between two and three times lower compared to the USA. Specific risk prediction models for European people are needed instead.

In addition, Van den Brand and colleagues show that women have a lower life time risk of kidney failure compared to men. The reasons for this are not entirely clear. Women may have a healthier lifestyle than men. On the other hand, the data of the ERA-EDTA registry is only about people who receive treatment when they have kidney failure. The researchers noted that older women in particular are less likely to receive treatment to replace their kidney function.

The study also shows that older people have a lower lifetime risk of kidney failure compared to young people. This is so for both men and women. The most important reason for this is the fact that older people have already survived for a long time without kidney failure – time during which a younger person is still at risk of kidney failure. This result may mean that older people may be accepted as living kidney donors in the future.