Kidney cancer incidence rates still rising in Ontario

Kidney cancer is the 10th most common cancer diagnosed in Ontario, with 1,786 new cases diagnosed in 2008, and is becoming more common. Since the early 1980s, kidney cancer incidence rates have increased markedly in both sexes. In males, rates rose by 3.9% per year between 1981 and 1989, stabilized between 1989 and 2004, and then jumped again at an annual rate of 5.3%. Female incidence rates showed a similar pattern, rising rapidly by 8.8% per year from 1981 to 1986 and then steadily, but less rapidly, from 1997 onwards, at 2.3% per year. Mortality rates for both sexes have followed a very different pattern, generally remaining stable or slightly declining during the same time period.

Ontario isn’t the only location with rising kidney cancer incidence rates—the United States, parts of Europe, Australia and parts of Asia are showing similar increases.1-3 This distinctive trend, particularly in the early 1980s, can be partially explained by greater use of imaging technologies, such as ultrasound, computed tomography, and magnetic resonance imaging, which help to detect early-stage tumours that don’t produce symptoms.4 The leveling off of kidney cancer incidence rates in Ontario from the late 1980s through the 1990s may therefore reflect what often happens with a new method of early diagnosis: incidence rates rise at first as pre-existing, formerly undetectable tumours are diagnosed but then return to their former level after all these tumours are detected.

- Kidney cancer incidence rates have risen substantially in Ontario since the early 1980s, and continue to rise in both males and females.
- Greater use of imaging technologies and changes in the prevalence of risk factors, such as smoking and obesity, may both be contributing to rising incidence rates.
The ongoing increase in male and female kidney cancer incidence rates in recent years may reflect changes in the prevalence of risk factors, such as cigarette smoking, obesity and hypertension. Cigarette smoking, in particular, is one of the most well-established risk factors for kidney cancer, increasing the risk of developing this disease by approximately 50%. The rapid rise in female kidney cancer incidence rates during the 1980s and the continued rise within more recent years, which began earlier than the recent male increase, may reflect the fact that smoking rates in women began declining later than in men. Therefore, it may take more time before there is a drop in the incidence of smoking-related cancers in women. It is also possible that ongoing increases in kidney cancer incidence rates for males and females may be due to the rising amount of obesity and hypertension in our population.

References:

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