Working Report-Bladder Cancer

Bladder cancer is the 7th most common cancer in men and the 17th in women in the world. In 2002, approximately 357000 new cases were diagnosed and 145000 patients were died from it. The age-adjusted incidence rates of bladder cancer are high in North America, Western and Southern Europe and North Africa while incidence rates are low in Japan, Korea and China. The racial difference in incidence of bladder cancer could partly be explained by different proportion of slow acetylators between races. Bladder cancer is 3 to 4 times more common among males than among females. The most well established risk factor for bladder cancer is cigarette smoking. In Japan, proportion of smokers among females has been increasing while those among males have been decreasing. Particularly, in Japan, female smokers in their twenties have been increased from 6.6% in 1965 to 24.1% in 2001. On the other hand, proportion of male smokers in Korean population has been decreased year by year (75.1% in 1992, 67.6% in 2000, 52.3% in 2005, and 44.1% in 2006). Female smokers in Korean population have also been decreasing (4.6% in 2007 to 3.7% in 2008). Influence of cigarette smoking on bladder cancer incidence in Japanese females should be carefully investigated henceforth. With respect to the occupational risk factors, specific chemicals including beta-naphthylamine, 4-aminobiphenyl and benzidine have already been banned from most of workplaces and contribute little to the current incidence of bladder cancer. Nevertheless increased risk has currently been reported among certain occupations such as painters, leather workers, shoe makers and drivers exposed by diesel exhaust. Prevention of environmental carcinogens, therefore, is pivotal to improve the life expectancy and quality of life of bladder cancer patients. On the other hand, susceptibility to neoplasm in the urinary tracts is not fully explained by exposure to carcinogens. Despite numerous studies on SNPs, however, only a few genetic polymorphisms such as NAT2 and GSTM1 have so far provided us valuable information. Nevertheless, genetic susceptibility remains to be a major research target from viewpoint of selecting individuals with high risk for bladder cancer.