Incense Use Tied to Respiratory Cancers

**Los Angeles** — A large prospective cohort study has found an association between long-term exposure to burning incense and cancers of the respiratory tract, according to a poster presentation by Dr. Jeppe T. Friborg at the annual meeting of the American Association for Cancer Research.

Among 61,320 Singapore Chinese, long-term incense users had more than twice the relative risk of non-nasopharyngeal carcinoma of the upper respiratory tract, compared with people who did not use incense.

The risk of squamous cell carcinomas of the lung rose 1.7-fold and the risk of squamous cell carcinomas of the entire respiratory tract rose 1.8-fold among long-term incense users, wrote Dr. Friborg of the University of Minnesota, Minneapolis, and colleagues.

The use of incense did not increase the risk of non-squamous cell carcinomas. Participants in the study were 45-74 years old and were cancer free when they enrolled between 1993 and 1998. They underwent a comprehensive interview on living conditions, dietary factors, and lifestyle factors. Investigations followed the cohort through 2005.

In the multivariate analysis, results were adjusted for age, gender, dis- asect group, education level, number of cigarette smokers per day, years of smoking, frequency of alcohol intake, intake of isoflavonoids, intake of Chinese-style preserved foods, body mass index, and parity in women.

The investigators noted that the burning of incense is an integral part of daily life in large parts of Asia and is not restricted to certain parts of daily life in large parts of Asia and is not restricted to certain regions of the world.

The number of lung retransplantations ranged from 25 to 200 patients per year in 2001-2004 and decreased to 71 patients in 2005, when the Organ Procurement and Transplantation Network adopted the new Lung Allocation Score (LAS). The study includes 13 of the 56 retransplantations performed in 2006. The median wait for a lung retransplantation in the modern era was 6 months before introduction of the LAS and 1 month since then.

Pre-LAS, 75% of recipients got lung retransplants within 19 months and the rest waited more than 19 months. Under the LAS system, 25% of recipients underwent lung retransplantation within 3 days of being wait-listed—“unbelievable!” Dr. Kawut remarked. Half of lung retransplantations occurred within 1 month, and 75% of retransplantations were performed within 2 months.

At 1 year after retransplantation, 62% of patients were alive. At 1 year after retransplantation, 62% of patients were alive. The investigators compared transplantation registry data on 205 patients who underwent lung retransplantation from 1990 to 2000, and a third set of 110 patients who survived at least 1 year after the procedure. They found an “absolutely dismal” survival rate of 14% for those who underwent retransplantation within 30 days of the primary transplant and 1-year survival in 58% of patients who underwent retransplantation more than 30 days after the surgery. The patients’ survival rate was 40% more likely to survive. Compared with patients undergoing a first lung transplant in the modern era, those getting retransplanted in the same time period were 40% more likely to die after controlling for the potentially confounding effects of age, sex, race, the initial diagnosis, the type of transplant procedure, and the use of mechanical ventilation.

A statistically significant increase in risk for death if the retransplanted lungs came from a male donor should be considered with some skepticism because other studies have not shown this, Dr. Kawut said.

To help physicians advise patients considering lung retransplantation, the investigators analyzed data on a subset of 110 patients who survived at least 1 year after the procedure. They found an “absolutely dismal” survival rate of 14% for those who underwent retransplantation within 30 days of the primary transplant and 1-year survival in 58% of patients who underwent retransplantation more than 30 days after the surgery—“still not perfect, but much better than 14%,” he said. “Numbers like these may be more useful for the patient in your office.”

The most difficult part of lung retransplantation is the ethical issues involved in giving one patient two opportunities for transplantation when that probably suits only one patient of even one transplant, because of donor organ shortages. Attention to this ethical issue “trails far behind our ability to do the procedure,” he said.