Patients with head and neck cancer may have impairment of some driving skills

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A preliminary study suggests that patients with cancer in the head and neck region may have inferior performance in some driving skills compared with individuals without the disease, according to a report in the September issue of Archives of Otolaryngology-Head & Neck Surgery, one of the JAMA/Archives journals.

“Driving is a complex task that requires adequate cognitive, psychomotor and visuoperceptualmotor functions that work together. These functions can be compromised to a greater or lesser extent in patients with cancer in the head and neck region who have received cancer treatment,” the authors write. Side effects from cancer treatment may reduce head and neck mobility and may cause cognitive impairment, pain and psychological distress predisposing patients to greater driving risks.

Hon K. Yuen, Ph.D., O.T.R./L., of the Medical University of South Carolina, Charleston, and colleagues used a virtual reality driving simulator to evaluate the driving skills of 10 patients with head and neck cancer (average age 56) and 50 members of the community (average age 48). Researchers recorded average speed, average brake reaction time, steering variability (vehicle offset from the center of driving lane in inches), the total number of collisions and the score of the Simulator Driving Performance Scale, which assesses participants’ driving behavior and skills including braking properly at intersections, driving within the speed limit, using mirrors properly and staying a safe distance from other vehicles.

The median (midpoint) time between surgery and participation in the study was 26.6 months and the average time between cancer therapy and study participation was 20 months.

The average brake reaction time and steering variability in the patients with cancer group were significantly longer (3,134.92 milliseconds vs. 2,299.8 milliseconds) and larger (271.26 inches vs. 46.45 inches), respectively, than those in the control group. There was not a significant difference between the two groups in average speed (21.8 miles per hour vs. 25.18 miles per hour), total number of collisions (1.1 vs. 1.4) or Simulator Driving Performance Scale scores.

Source: JAMA and Archives Journals