'Weekday effect' not a risk factor for death from elective surgery

17 October 2016

The day of the week that elective surgery is performed in Ontario does not affect a patient's risk of death, according to a new study published in CMAJ (Canadian Medical Association Journal).

"While previous studies have shown a higher risk of mortality in patients having elective surgery Friday rather than earlier in the week, our data indicate that's not the case in Ontario," says Dr. Chris Vinden, the study's senior author, an adjunct scientist at the Institute for Clinical Evaluative Sciences (ICES) and an associate professor of surgery at Western University's Schulich School of Medicine and Dentistry.

The study examined all adult patients who underwent 1 of 12 elective daytime surgical procedures during a 10-year period from 2002 to 2012. The researchers included 402,899 procedures performed by 1691 different surgeons and found no difference in 30-day mortality between procedures performed on Fridays and those performed on Mondays.

Procedures included elective surgeries on the esophagus, kidney, pancreas, colon and liver, hip and knee replacements, aortic valve replacements, and others.

"Our data suggest that despite differences in surgeon experience, the risk of 30-day mortality after elective surgery was similar, regardless of which day of the week the procedure took place," says Dr. Luc Dubois, the study's lead author, assistant professor at the Schulich School of Medicine and Dentistry and a vascular surgeon at London Health Sciences Centre in London, Ont.

Surgeon experience varied substantially by day of the week, with those operating on Fridays having less experience than those operating on Tuesdays and Wednesdays. Most patients who underwent surgery on a Friday had postoperative care on the weekend.

The reasons for variation in mortality outcomes after elective surgery may be differences in postsurgical care, staffing levels, availability of diagnostic services, which are often reduced on weekends, and other factors.

"The results of our study are reassuring to administrators, policy-makers and the public that, at least in Ontario, Canada, elective surgical mortality does not vary according to the day of the week," state the authors.

The study was conducted by researchers from the Schulich School of Medicine and Dentistry, Western University, London, Ont. and ICES, Mount Sinai Hospital and the University of Toronto, Toronto, Ont.

Provided by Canadian Medical Association Journal