

## **Effects of indigo carmine intravenous injection on oxygen reserve index (ORi™) measurement.**

Isosu T(1), Yoshida K(2), Oishi R(2), Imaizumi T(2), Iseki Y(2), Sanbe N(2), Ikegami Y(2), Obara S(2), Kurosawa S(2), Murakawa M(2).

Author information:

(1)Department of Anesthesiology, Fukushima Medical University, 1 Hikariga-oka, Fukushima City, Fukushima, 960-1297, Japan. t-isosu@fmu.ac.jp.

(2)Department of Anesthesiology, Fukushima Medical University, 1 Hikariga-oka, Fukushima City, Fukushima, 960-1297, Japan.

J Clin Monit Comput. 2018 Aug;32(4):693-697. doi: 10.1007/s10877-017-0064-5. Epub 2017 Oct 3.

To retrospectively investigate the effects of indigo carmine intravenous injection on oxygen reserve index (ORi™) in 20 patients who underwent elective gynecologic surgery under general anesthesia. The study subjects were patients who underwent elective gynecologic surgery under general anesthesia between April 2016 and January 2017, and were administered a 5-ml intravenous injection of 0.4% indigo carmine for clinical purposes during surgery with ORi monitoring. Changes in ORi within 20 min after indigo carmine injection were observed. A relevant decrease in ORi was defined as  $\geq 10\%$  reduction in ORi from pre-injection level. ORi rapidly decreased after indigo carmine intravenous injection in all patients. In 10 of 19 patients, ORi decreased to 0 after indigo carmine injection. The median lowest value of ORi was 0 (range 0-0.16) and the median time to reach the lowest value of ORi was 2 min (range 1-4 min) after injection. ORi values returned to pre-injection levels within 20 min in 13 of 19 patients, and the median time to return to pre-injection levels was 10 min (range 6-16 min) after injection. During ORi monitoring it is necessary to consider the rapid reduction in ORi after intravenous injection of indigo carmine.