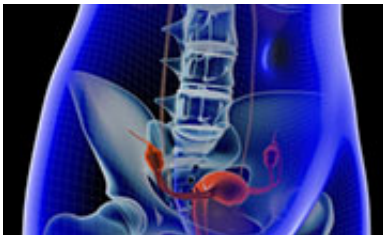


Novel pharmacological activity for R-ketorolac in ovarian cancer

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(HealthDay)—The R-enantiomer of ketorolac is enriched in peritoneal fluids and inhibits peritoneal cell GTPase activity with administration after ovarian cancer surgery, according to a study published online June 12 in *Clinical Cancer Research*.

Noting that Rac1 and Cdc42 regulate cancer-relevant functions necessary for tumor cell adhesion and migration, Yuna Guo, from the University of New Mexico School of Medicine in Albuquerque, and colleagues examined the effects of administration of racemic (R, S) ketorolac after ovarian cancer surgery. Patients had suspected advanced stage, ovarian, fallopian tube, or primary peritoneal cancer. The authors assessed the association between perioperative ketorolac and ovarian cancer-specific survival.

The researchers detected elevated expression and activity of Rac1 and

Cdc42 in tissues from [ovarian cancer](#) patients, confirming target relevance. The R-enantiomer of ketorolac was enriched in peritoneal fluids, and peritoneal cell GTPase activity was inhibited after ketorolac administration when R-ketorolac was at peak levels. Women given perioperative ketorolac had a lower risk of death (hazard ratio, 0.30) after adjustment for age, American Joint Committee on Cancer stage, completion of chemotherapy, and neo-adjuvant therapy.

"Ketorolac has a novel pharmacologic activity conferred by the R-enantiomer, and R-ketorolac achieves sufficient levels in the [peritoneal cavity](#) to inhibit Rac1 and Cdc42, potentially contributing to the observed survival benefit in women who received [ketorolac](#)," the authors write.

More information: [Abstract](#)
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