

Study pinpoints best treatment for fast-growing gestational tumors

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A clinical trial has sifted out the most effective single-drug chemotherapy regimen for quick-growing but highly curable cancers that arise from the placentas of pregnant women.

In the comparison trial for treating low-risk gestational trophoblastic neoplasia (GTN), researchers found that a biweekly dose of dactinomycin had a higher complete response rate than a weekly dose of methotrexate, the more commonly used drug. GTN is a group of rare tumors that involve [abnormal growth](#) of cells inside a woman's uterus.

"Both [chemotherapy drugs](#) are effective in treating this kind of neoplasia, but this trial proved that dactinomycin is the best first-line regimen," said Dr. David Scott Miller, who is the head of gynecologic oncology at UT Southwestern Medical Center and co-investigator on the study.

The trial, supported by grants from the National Cancer Institute to the Gynecologic Oncology Group, was published in the March issue of the [Journal of Clinical Oncology](#).

Dr. Miller, professor of obstetrics and gynecology, chairs the uterine corpus committee of the Gynecologic Oncology Group. As group members, UT Southwestern specialists are able to offer patients access to national protocols supported by the institute.

Unlike cervical or endometrial cancers, which develop from cells of the

uterus, trophoblastic neoplasia starts in the cells that would normally develop into the placenta during pregnancy. These tumors include hydatidiform moles, caused by over-production of the tissue that typically develops into the placenta, and choriocarcinoma, a quick-growing form of cancer in a woman's uterus.

There has been no consensus on which drug and regimen best treats GTN, and researchers found that such choices were highly institution-specific.

In this trial, researchers compared regimens of both cancer drugs in a sample of 216 women enrolled over an eight-year period. Adverse effects were minimal with either drug, but a biweekly dose of intravenous dactinomycin was superior to a weekly intramuscular injection of methotrexate in stopping the growth of cancerous cells in the uterus. Dactinomycin had a 70 percent complete response rate compared to 53 percent for methotrexate.

Study patients who received dactinomycin also required half the number of treatment cycles. Dactinomycin additionally was easy to administer and had low toxicity – a strong consideration for young reproductive-age women.

"Minimizing toxicity is essential in low-risk GTN, because these women have a high-cure rate and usually hope to have subsequent pregnancies," Dr. Miller said. "These tumors are much more common in developing countries, where access to more complicated chemotherapy regimens is limited. The Gynecological Oncology Group has sought to develop simpler but effective regimens that would lend themselves to use in low-resource settings."

Researchers said further trials comparing the biweekly dactinomycin regimen with other methotrexate regimens are warranted.

Provided by UT Southwestern Medical Center

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