Targeted toxin active in platinum-resistant ovarian cancers

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A new antibody-guided drug has shown promising activity in a phase I trial involving ovarian cancer patients with platinum drug-resistant disease, researchers from Dana-Farber Cancer Institute will report today at the annual meeting of the American Association for Cancer Research. The findings (abstract LB-290) will be discussed at a press conference on Saturday, April 06, 2013, and later at an oral presentation on Tuesday, April 09, 2013.

Joyce Liu, MD, MPH, first author of the study, said that among 29 patients who received the antibody-drug conjugate at what was found to be the maximum tolerated dose, there was one complete response and four partial responses. "In addition, there were additional patients with prolonged stable disease who were able to stay on treatment," said Liu, of the gynecologic oncology treatment center at Dana-Farber.

The responses all occurred in patients whose tumors had high expression of the MUC16 protein to which the drug is targeted. Known as DMUC5754A, the drug conjugate consists of an antibody, which recognizes the MUC16 protein expressed by ovarian cancer cells, fused to a toxin, MMAE, which prevents cancer cells from dividing. Targeting the drug conjugate specifically to ovarian cancer cells reduced adverse effects of the toxin on healthy tissues and organs, said Liu. She called the safety profile "encouraging." Most common adverse effects were fatigue, nausea, and vomiting. This phase 1 multicenter trial is the first use in humans of DMUC5754A, and the responses, which Liu called "a nice sign of activity in a very challenging type of ovarian cancer to

treat," merit further testing in a phase II trial, which is being planned. "If the activity of this drug is confirmed in additional trials, this will represent a novel type of therapy for ovarian cancer," Liu said.

Provided by Dana-Farber Cancer Institute