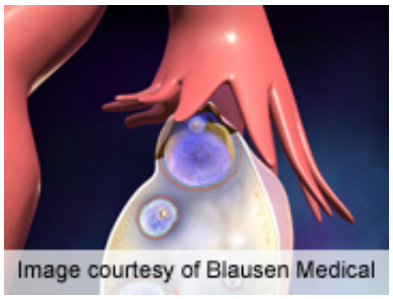
MicroRNA expression linked to neoadjuvant chemo response

16 June 2014



(HealthDay)—Expression of the microRNA MiR-193a-5p, together with HGF and c-MET proteins, is associated with response to neoadjuvant chemotherapy (NACT) in ovarian cancer, according to a study published online June 13 in *Oncotarget*.

Marisa Mariani, Ph.D., from the Danbury Hospital Research Institute in Connecticut, and colleagues attempted to identify actionable mechanisms of resistance to NACT in patients with ovarian cancer. MicroRNA expression was screened in a set of 85 patients. To analyze potential targets, significant correlations were calculated between microRNAs and genes. In a validation set of 109 patients, quantitative immunohistochemistry was employed to validate targets.

The researchers found that in the NACT setting, MiR-193a-5p was significantly overexpressed. This microRNA was also significantly correlated with *HGF* and *MET* genes in analysis of potential targets. In analysis of protein expression before and after NACT, both HGF and MET were found to be increased after NACT. The highest relative basal expression of HGF and c-MET was exhibited by patients who relapsed shortly after NACT, while the opposite phenomenon was seen in the best responders.

"Mir-193a-5p, HGF, and c-Met expression may help select eligible patients for this modality of treatment," the authors write. "Moreover, inhibitors of this pathway may improve the efficacy of NACT."

More information: Abstract
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