Androgen receptor signaling tied to insulin resistance

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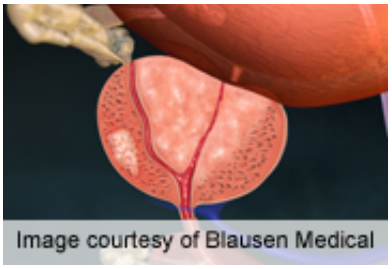

(HealthDay)—Mouse models show tissue-specific androgen receptor (AR) signaling is involved in regulation of metabolism, which may explain the link between androgen deprivation therapy (ADT) and the development of metabolic syndrome in men, according to research published in the October issue of *Diabetes*.

I-Chen Yu, of the University of Rochester in New York, and colleagues reviewed the evidence from murine models revealing the molecular mechanisms mediated by AR signaling that link ADT to metabolic syndrome. Results from various AR knockout (ARKO) mouse models, including the global ARKO mouse model and cell type-specific ARKO mouse models for liver, neuronal, adipose, and skeletal muscle tissue, were evaluated.

The researchers found that data from research with various ARKO

mouse models reveal tissue-specific AR signaling that is involved in the regulation of metabolism. These data suggest that further research should explore tissue-selective modulation of AR signaling and treatment with insulin-sensitizing agents for the early management of metabolic complications in men receiving ADT for prostate cancer.

"These findings suggest promising targets for tissue-selective treatments to manage metabolic complications found in patients with prostate cancer during ADT," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)