Melanoma mystery: Obese men undergoing immune-therapy survive longer than those with normal weight

Obese men with metastatic melanoma who are treated using targeted or immuno-therapies survive for more than twice as long as patients receiving the same treatment, but who have a normal body mass index (BMI), according to a retrospective study by researchers at the University of Texas MD Anderson Cancer Center.

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[Researcher Jennifer] McQuade stresses, "The public health message is not that obesity is good. Obesity is a proven risk factor for many diseases. Even within our metastatic melanoma population, we would not suggest that patients intentionally gain weight. We need to figure out what is driving this paradox and learn how to use this information to benefit all of our patients."

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The differential effects of BMI on survival according to sex points toward the possibility that a hormonal mechanism is at work. In men, aromatase enzyme in adipose tissue converts androgens to estrogen compounds, resulting in higher circulating levels of estradiols. Dr. McQuade's team is now working with investigators at the University of Pennsylvania, who have found that turning on a particular estrogen receptor on melanoma cells makes them vulnerable to immunotherapy. The MD Anderson team is also looking at gene expression, mutations and immune profiling to identify possible differences in melanoma between obese and non-obese patients, and developing preclinical models.

Read full, original post: Obese Males May Have Melanoma Survival Advantage