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Progress achieved in obesity vaccine research

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Singapore: Though still some years away from clinical development in humans, a new study conducted at Braasch Biotech, a US-based company, has shown in mice that a prohphylatic vaccine for obesity can indeed be a reality.

In a study published in *Journal of Animal Science and Biotechnology*, the researchers, headed by Keith N Haffer, CSO of Braasch Biotech, conducted a study to observe the therapeutic effects of a novel somatostatin vaccine for reducing weight gain and increasing weight loss in diet induced obesity (DIO) model. The results showed that those mice that did receive the vaccine displayed statistically significant weight loss as compared with their controls.

The study consisted of two formulations of chimeric-somatostatin vaccines being administered to the mice at different time intervals while a control group of mice were given PBS. Both sets of mice were put on a similar diet, of 60% Kcal fat diet. At the end of the 6 week study, the presence of high levels of anti-somatostatin antibodies at 6 weeks was said to be correlative with the weight observations and thus confirmed the success of vaccination. The control mice did not display any antibody titers to somatostatin. Also the percentage of baseline body weight of the test mice was also significantly affected by vaccination during the study period.

Previously considered to be a disease of developed nations, obesity is slowly finding its way in countries such as India where 5% of the country's population is morbidly obese. Obesity is also considered to be one of the primary factors leading to diabetes, another highly prevalent condition found in the subcontinent.

Somatostatin is known to inhibit the release of GH from the anterior pituitary. Immunization of animals to somatostatin has been previously recognized as a means of removing somatostatin's normal inhibitory effects and increasing levels of both GH and IGF-1.The study had effectively demonstrated the usefulness of treating obesity with vaccination and warrants additional studies and parameter monitoring in other animal models such as(normal pigs, obese minipigs and obese dogs for further .

Even though it might be a while before this vaccine reaches human trials, this study has garnered wide interest and press coverage around the globe for its interesting findings.