Hunger Games

Chapter 1

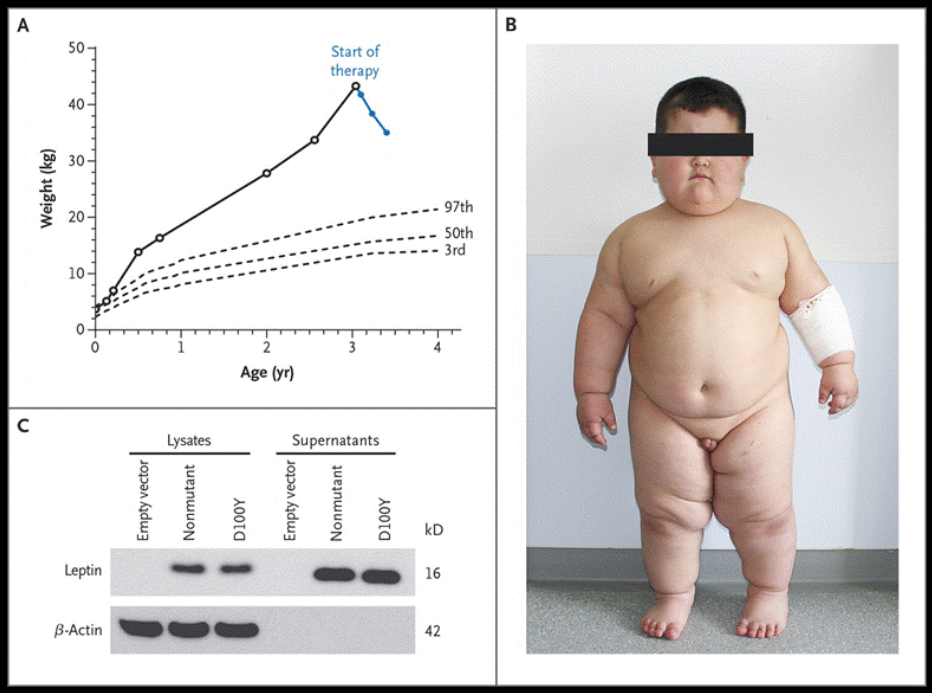
The most common question my patients pose regards their weight control. It is almost universal regardless of their body mass index (BMI). Dieting works for a while, but when the diet ends they're right back where they started if not bigger. The Human Chorionic Gonadotropin (HCG) diet has them inject themselves with HCG and go on an 800 calories a day diet. A near starvation diet will result in weight loss, but things go back to normal, the weight all comes back. Exercise is the most frustrating method to produce weight loss, from 5am boot camps to daily runs produce little if any weight loss. So as we get wider and wider what is the cause and what is the cure.

The Hunger Game is played with three hormones. Ghrelin (Growth Hormone Releasing Initiator), Growth Hormone, and Leptin. Ghrelin is released from the stomach when it's empty and tells your brain, "If you don't eat, You're gonna' die". Leptin is released from your fatty tissue and tells your brain, "You're getin' fat and slow, you're gonna' die if you keep eating". These two hormones make you eat and make you stop. Sugars block Leptin so you stay hungry and you eat whenever you're stomach is empty and Ghrelin is unopposed. Ghrelin has an open field, no opposition.

An unfortunate example of what will happen if Ghrelin has no opponent is the "Leptin Baby". This child was born in Germany to Turkish parents. He had a genetic defect and did his fat did not produce any Leptin. By the time he was two years old he weighed 110 lbs. (normal weight is 27-31 lbs.). He could not stop eating (Fig. 1 B). His Hunger Game was completely one sided until Leptin got on the field. His German physicians diagnosed his problem and had biochemists make Leptin for him to inject on a regular basis. His weight then plummeted into the normal range. (Fig 1 A).

You and I produce Leptin, we just block it out with excessive sugar giving Ghrelin a tremendous advantage in the Hunger Game. Next – Dropping the Leptin Block…and triggering Growth Hormone release.

A Boy with a Novel Mutation in the Leptin Gene.



Wabitsch M et al. N Engl J Med 2015;372:48-54.