with 84% neutrophils, 10% lymphocytes, 1% metamyelocytes, and 5% monocytes. Hemoglobin (18.5 g/dl), hematocrit (51.7%) and platelet count (614k/uL) were also elevated. Peripheral blood smear revealed normal cell morphology. Urinalysis revealed elevated specific gravity, marked glycosuria and ketonuria, negative nitrites and leukocyte esterases. Blood specimen were obtained for culture. Therapy was instituted with intravenous fluids, insulin drip and broad spectrum antibiotics.

On the fourth hospital day, the patient was well and tolerating diet, with normalization of blood glucose, WBC 9.87 (85% neutrophils, 10% lymphocytes, 5% monocytes) and control of acidosis. Since cultures were negative and patient was afebrile, antibiotics were discontinued. He was discharged stable on with basal-bolus insulin.

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"Awakening of the Beta Cell©"
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**Background:** Endocrinologists often manipulate hormones by adding medication or replacing hormones that are no longer being produced. However, replacing hormones artificially causes hormone producing cells that are still viable to become suppressed and ultimately shut down. For example, with estrogen, testosterone, or cortisol replacements, the cells responsible for the production become inactive. This study tries to show that the same process affects the beta cells in the pancreas. The more insulin given, the further these beta cells become suppressed, and block natural insulin production. Rather than insulin resistance, our results showed that high dose artificial insulin inhibits the beta cells and prevents natural production.
Methods: To perform this study, we took a random sample of 13 type 2 diabetics on high doses of insulin. Prior to the study, they were taking over 20 units of bolus prandial insulin 3x daily, and over 50 units of basal insulin 1-2x daily. We reduced their insulin by half, monitored them closely, instructed them to change their lifestyle and follow a proper diabetic diet.

Results: Out of the 13 patients, 10 of them showed significant improvement on follow-up evaluation. The HbA1c and finger sticks had remained consistent or improved with the reduced dose. This showed the beta cells had been suppressed and were now becoming more responsive. Overall, the patients responded well to the reduction in their high doses of insulin, and it appeared that the pancreas’ beta cells began to naturally produce insulin.

Conclusion: The results showed that a lifestyle change along with the reduction in insulin was successful in treating patients with Type 2 Diabetes. Like any other hormone, prescribing large doses of insulin has been indirectly suppressing the action of beta cells. This suggests that patients may not be developing insulin resistance, rather their beta cells are losing their functionality. To control their Type 2 diabetes, patients should focus on pursuing a healthy lifestyle and lowering their insulin. Limitations to the study were that the threshold where the beta cells no longer function has not yet been quantified, and patient non-compliance with monitoring and lifestyle changes, resulting in the need for increased insulin.

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