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Research Article

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Sixty-Four Hour Changes in Oral-Intestinal, Extracellular, and Intracellular Redox Status After an All-Day Maillard-Coated Food Binge Followed by Two Days of Redox/Digestion-Balanced Culinary Medicine: A Pilot Single Case Analysis

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Abstract

Browned, melanoidin-coated, and Maillard reaction end-product-covered convenience and fast-foods are as addictive as street drugs. And drive overeating, systemic oxidative stress (SOS: pE- > pH+), and systemic reductive stress (SRS: pE- < pH+), overweight, and the leading causes of mortality and morbidity worldwide.

Redox/digestion-balanced culinary medicine protocols are absent as healthcare professionals and the people they serve begin to recognize that Maillard abuse disorder is the main obstacle to self-actualization and a long, accomplished, and content energetically ambulatory extended lifespan.

A PubMed search revealed no studies exhibiting sixty-four-hour changes in oral-intestinal, extracellular, and intracellular redox status after an all-day Maillard-coated food spree followed by two days of redox/digestion-balanced culinary medicine. The purpose of this single case study is to analyze changes, if any, in oral-intestinal, extracellular, and intracellular redox status after an all-day Maillard-coated binge followed by two days of redox/digestion-balanced culinary medicine and examine the feasibility of more extensive investigations.

The participant met inclusion criteria, drank Maillard-rich colas for breakfast, a small pizza, a peanut butter shake for lunch, a double bacon cheeseburger, and a dozen chicken wings for dinner and provided blood and urine samples. The volunteer then underwent redox/digestion-balanced culinary medicine detoxification and provided laboratory samples. TSH, TG/HDL ratio, VLDL/HDL ratio, LDL/HDL ratio, and urine pH+ measured oral-intestinal and extracellular redox status. The neutrophil-to-lymphocyte and platelet-to-lymphocyte ratios assessed intracellular redox status. It took sixty-four hours for the participant's body and mind to neutralize the toxic manifestations of a day-long binge on Maillard reaction intermediate and end-products, melanoidins, advanced glycation end-products (AGEs), and advanced lipoxidation end-products-coated and containing foods and beverages. More extensive investigations are needed to increase the Maillard abuse detoxification options. Healthcare professionals and the people they serve increasingly recognize that Maillard abuse is the main obstacle to self-actualization and a long, accomplished, and energetically ambulatory lifespan.

Keywords: Maillard Abuse Disorder, Maillard Culinary Medicine Detoxification, Redox Biophysics, Systemic Reductive Stress, Systemic Oxidative Stress, Prime Systemic Energy

Introduction

Browned, melanoidin-coated, and Maillard reaction end-product-covered convenience and fast-foods are as addictive as street drugs [1]. And drive overeating, systemic oxidative stress (SOS: pE- > pH+), and systemic reductive stress (SRS: pE- < pH+) [2], overweight, and the leading causes of mortality and morbidity

worldwide [3].

Redox/digestion-balanced culinary medicine protocols are absent as healthcare professionals and the people they serve begin to recognize that Maillard abuse disorder is the main obstacle to self-actualization and a long, accomplished, and content energetically ambulatory extended lifespan. A PubMed search revealed no studies exhibiting sixty-four-hour changes in oral-intestinal, extracellular, and intracellular redox status after an all-day Maillard-coated food spree followed by two days of redox/digestion-balanced culinary medicine.

The purpose of this single case study is to analyze changes, if any, in oral-intestinal, extracellular, and intracellular redox status after an all-day Maillard-coated binge followed by two days of redox/digestion-balanced culinary medicine and examine the feasibility of more extensive investigations.

Methods

The participant met inclusion criteria, drank Maillard-rich colas for breakfast, a small pizza, a peanut butter shake for lunch, a double bacon cheeseburger, and a dozen chicken wings for dinner [4]. Forty hours later, he lowered his urine pH+ from its systemic reductive stress (SRS: pE- < pH+) urine pH+ range of 6.7 to 7.7 to the prime systemic energy (PSE: pE- = pH+) urine pH+ range of 5.6 to 6.6 by drinking vinegar and testing his urine pH+ at-home using 'Just Fitter pH Test Strips pH 4.5 – pH 9.0' before driving to the laboratory to provide blood samples for CBC with differential and platelet count, comprehensive metabolic panel, lipid panel, and TSH, and a urine sample for routine urinalysis. The participant returned home and consumed Maillard-free medium-rare grain-fed steak, steamed rapini, and seraphim sauce made primarily of never-heated fresh garlic with lesser amounts of fresh ginger and turmeric roots added. And drove to the laboratory 1.75 hours after consuming the steak and rapini to provide blood and urine samples. The participant returned to the laboratory after indulging in medium-rare steak, twice the previous amount of rapini, and the same amount of seraphim sauce and entering the SRS (pE- < pH+) urine pH+ range 6.7 to 7.7. The subject returned to the laboratory the following day to provide fasting blood and urine samples. TSH, TG/HDL ratio, VLDL/HDL/ratio, LDL/HDL ratio, and urine pH+ measured oral-intestinal and extracellular redox status. The neutrophil-to-lymphocyte and platelet-to-lymphocyte ratios assessed intracellular redox status.

Total systemic stress (TSS) scores equal the addition of percent changes in extracellular and intracellular redox values. TSS scores reflect the amount of oral-intestinal, extracellular, and intracellular systemic oxidative stress (SOS: pE- > pH+) within the SOS urine pH+ range of 4.5 to 5.5 and prime systemic energy (PSE: pE- = pH+) urine pH+ range of 5.6 to 6.6. TSS score mirrors oral-intestinal, extracellular, and intracellular systemic reductive stress (SRS: pE- < pH+) within the SRS urine pH+ range of 6.7 to 7.7.

Results

Sixty-four hours' worth of changes in oral-intestinal, extracellular, and intracellular redox status detailed in Table 1 occurred after an all-day Maillard-overindulgence followed by two days of redox/digestion-balanced culinary medicine.

Table 1: Sixty-four-hour changes in oral-intestinal, extracellular, and intracellular redox status after an all-day Maillard binge followed by two days of redox/digestion-balanced culinary medicine

Maillard-Free Food Trial Overall pH+	TSH Thyroid Function (TF) % Change	TG/HDL Ratio (THR) % Change	VLDL/HDL Ratio (VHR) % Change	LDL/HDL Ratio (LHR) % Change	Urine pH+ % Change Total Systemic Stress (TSS) Score **	Neut/Lymph Ratio (NLR) % Change	Plate/Lymph Ratio (PLR) % Change
5PM Results 40 Hours Earlier After a Day-Long Binge on Maillard-Coated Fast-Foods*	5.9 TF -84%	735/37 19.9 +333%	126/37 3.5 +298%	101/37 2.7 -34%	7.0 +8% TSS +556	64/27 2.4 +14	321/27 11.9 +21%
30 Minutes after AM Vinegar pH+ 2.5	3.2	159/46 3.5	29/46 0.63	160/46 3.5	6.0	63/28 2.3	284/28 10.1
1.75 Hours after Medium-Rare Steak, Rapini, Seraphim Sauce pH+ 6.0	3.2 TF 0%	193/44 4.4 +20%	36/44 0.82 +23%	163/44 3.7 +5%	6.5 +8% TSS +76	65/25 2.6 +5%	298/25 11.9 +15%

2.75 Hours after Medium-Rare Steak, 2x Rapini, Seraphim Sauce pH+ 6.4	2.7 TF +16%	219/40 5.5 +20%	40/40 1.0 +18%	153/40 3.8 +3%	7.5 +15% TSS +47	63/28 2.3 -12%	287/28 10.3 -13%
Next Morning Fasting Results	3.1 TF -13%	139/45 3.1 -44%	25/45 0.56 -44%	154/45 3.4 -11%	5.5 -27% TSS -146	62/28 2.2 -4%	281/28 10.0 -3%

*Detailed results of a day-long Maillard binge were submitted to the International Journal of Diabetes & Endocrinology on 11/17/2021 [4].

** Total Systemic Stress (TSS) score reflects the amount of oral-intestinal, extracellular, and intracellular systemic oxidative stress (SOS: pE- > pH+) within the SOS urine pH+ range of 4.5 to 5.5 and prime systemic energy (PSE: pE- = pH+) urine pH+ range of 5.6 to 6.6. TSS score mirrors oral-intestinal, extracellular, and intracellular systemic reductive stress (SRS: pE- > pH+) within the SRS urine pH+ range of 6.7 to 7.7.

Discussion

It took sixty-four hours for the participant's body and mind to neutralize the toxic manifestations of a day-long binge on Maillard reaction intermediate and end-products, melanoidins, advanced glycation end-products (AGEs), and advanced lipoxidation end-products-coated and containing foods and beverages.

The 86% drop in TSS score (556-76=480/556 x 100) suggested that the Maillard-free steak, rapini, and seraphim sauce-redox/digestion-balanced culinary medicine detoxification protocol succeeded. In re-equilibrating oral-intestinal, extracellular, and intracellular spaces from a towering +556 systemic reductive stress (SRS: pE- < pH+) at urine pH+ 7 to a modest +76 TSS score within prime systemic energy (PSE: pE- = pH+) at urine pH 6.5. Intracellular redox imbalance corrected, and extracellular redox imbalance further improved but did not correct as confirmed by a positive TSS, after the steak, double-portion of rapini, and the same portion of seraphim sauce that moved the urine pH+ up to 7.5, well into SRS (pE- < pH+) territory. The simple act of sleeping led to the following day's TSS score of minus-146. All extracellular and intracellular were imminently approaching prime systemic energy (PSE: pE- = pH+).

Conclusion

More extensive investigations are needed to increase the Maillard abuse detoxification options. Healthcare professionals and the people they serve increasingly recognize that Maillard abuse is the main obstacle to self-actualization and a long, accomplished, and energetically ambulatory lifespan.

Conflict of interest statement

The author has no conflicts to disclose.

Dedication

This article is dedicated to Eleni Soumela.

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