Chronic Toxic Metal Toxicity and other Chronic Medical Problems.

Prepared by

Gana Kiritharan

ABSTRACT

I, Gana Kiritharan, am experiencing chronic medical problems from year 2002 (age of 34) which can be identified as Metabolic Syndrome. On May 2010, I discovered that I am a victim of chronic form of Toxic Metal Toxicity (Mercury, Lead, Cadmium and other) possibly due to criminal intention. After I started treatment for my Toxic Metal Toxicity I experienced high level of fluctuation of my Fasting Blood Glucose value. During last 12 months my fasting blood glucose value went above 16 mmol/L twice and it went below 8 mmol/L twice. Already conducted research explains toxic metals like Cadmium can cause impairment of Glucose Tolerance in Rats. These researches explain Cadmium can seriously reduce the number of Insulin Receptors in fat cells but can cause moderately elevated insulinemia. When I tried to take Insulin injection for my diabetic problem it not only failed to bring any big control but also caused complications which can be attributed to Hyperinsulinemia. When I recalled my mother's medical problems I realized she may suffered chronic form of toxic metal toxicity for a long period of time and she may get these toxic metals from fire woods used in the kitchen. When I searched for more evidence for toxic metal toxicity as the cause for woman health problem, I found toxic metal toxicity may me an important contributory factor for menopausal syndrome and several other psychological problems suffered by woman. Estrogen or some of it byproducts in synthesis may give protection for woman from toxic metals until menopause. Through this article I want to call medical profession to abundant its present attitude of denial and refusal and come forward to establish a proper preventive, diagnostic, and treatment protocols for this complex medical problem.

Introduction:

I born on September 1967 and selected for Medical Studies in 1987 and was in Jaffna (Sri Lanka) medical school till 1995. In our medical school; as our part of studies; we carried out several lab experiments on our body. Most of the lab experiments conducted on my body (WBC/DC to ESR) brought normal results. As a part of small medical research my Glucose Tolerance Test was checked in 1989 - 1990 (When I was 22 or 23). Out of 3 or 4 medical students checked, mine was the one showed most intolerance. Any how it was far beyond for diagnosis of diabetic mellitus. The available record of lab experiment was conducted in August 1999 in Ottawa, Canada. On that report random serum glucose was 5.6 mmol/L and all other indices were within normal range.

The first medical report which showed some chronic medical problem was conducted on June 2002 (Age 34).

Triglyceride	7.8	mmol/L
Cholesterol/HDL	6.03/.99	mmol/L
Fasting Glucose	6.2	mmol/L

My family doctor gave some dietary advise and we repeated test after 3 months.

Triglyceride	>11.4	mmol/L
Cholesterol/HDL	7.69/1.29	mmol/L
Fasting Glucose	6.5	mmol/L

Doctor started Fenofibrate as medication for my Triglyceride and Cholesterol problem and tests were repeated after two months.

Triglyceride	2.74	mmol/L
Cholesterol/HDL	5.35/1.55	mmol/L

Fasting Glucose was not checked at that time.

In year 2005 (Age of 37) my fasting blood glucose level went up and doctors started treatment for diabetes. Important Information about my chronic medical problems may come to light on 18th or 19th of May 2010. On that date, while I was cooking some curry at home, I saw small amount of glittering fluid was running in cooking utensil. On a suspicion that the glittering fluid may be toxic metals like mercury, I carried out appropriate lab experiments and found several toxic metals got accumulated in high amount in my body.

Before moving further let me tell you a brief past medical history and family medical history.

Past Medical History:

I came to this world through 3rd cesarean section for my mother. First child for my mother was a still birth and I do not know the year of this first cesarean section. Then my elder brother born on October 1964 through second cesarean section and after 3 years I cam to this world through third cesarean section. As my parents already had a baby boy they may be expected a baby girl. Unfortunately I came out as a boy and this may lead some unwanted baby boy treatment in early childhood. Anyhow I received much better care than any other average child in my community. One example may be when my brother was preparing for his grade 5 (10 years old) IQ test; I was 7 years old and able to solve most of the problems. When my turn came my parents arranged best private tuition available in our village and I scored 157 for 200. That was the highest at least in our school.

Following table may give important medical incidents in my life.

Age	Incident
5 – 10	I may be a very week person. Once one of my pear group friends described my body as a good model to teach bones in the body. A regular upper respiratory track infection may take more than two weeks to heal and once family doctor threatened I may suffering from TB. When I started to grow up I started to eat and any nutritional problems may disappeared.
Around 12	I may developed quadriceps tendonitis and it healed with enough rest and appropriate medication.
18 - 19	Around my high school exams I may developed sinusitis and took Ampicillin antibiotics through out my exam period.
21	When I went to my medical school, for the first time I may took food out side my home for a long period of time and I was taking vegetarian food as well. After 3 months or so I developed Urinary Track Infection. I took Nalidixic acid. After this my parents moved with me and I started to eat home cooked food again.
24 or 25	When I went to rescue some war injured casualty I got trapped in cross fire and got a small injury in right upper arm. Through a small surgery the fragment was removed next day. During treatment for this injury; for the first time; I developed a Malaria infection. It healed with one full dose of treatment.
21 – 28	During my Medical School I may developed Upper Respiratory track infection more frequently, may be every two months. Also Viral Warts and on and off also experienced weight gain.
29 – 31	When I waiting to leave Sri Lanka to India I may developed a Malaria infection. Again while in India I developed Malaria infection 3 – 4 times. Then I took some broad spectrum anti-malarial drugs and did not developed malaria infection after that.

Table 1: Past Medical History of Gana Kiritharan.

Family Medical History:

Let me give you a small family medical history. The only significant medical problem my brother developed may be Rheumatic Fever. He may developed this medical problem around 15 years old and followed medically advised monthly Benzathine Penicillin injection and escaped without any permanent damage.

My dad is a Diabetic Patient developed this problem in his late 30s or early 40s. He managed this problem on oral hypoglycemic drugs, never took insulin Injection. He did regular exercise (went work on bicycle and managed our 2 acre land mostly without hiring additional labor). He may not be worried about his diet much. He used to eat regular food with others but avoided sugar. I can confirm his abdominal circumference more than 40 inches. His triglyceride level may never been checked and I do not remember any doctor diagnosed him as metabolic syndrome patient. My mother may had many medical problems and I will discuss these in detail later.

Details Medical History:

Following table gives lab experiments conducted during last 10 years and any change in the environment or medication.

DATE	ENVIRONMENTAL DETAILS	TRIGLY CERIDE	CHOLES TEROL	HDL	FASTING GLUCOSE	MEDICATION FOLLOWED BEFORE LAB EXPERIMENT.
19-Jun-2002	In Ottawa. Exercise in form of walking	7.08	6.09	.99	6.2	No Diet or Medication
11-Sep-2002	In Ottawa. Exercise in form of walking	11.4	7.69	1.29	6.5	Some Diet
14-Oct-2002	In Ottawa. Exercise in form of walking	2.74	5.35	1.55		Fenofibrate
7-Oct-2003	In India. Exercise in form of Walking	2.24	6.9			Fenofibrate
22-Oct-2004	In Toronto. Exercise in form of heavy manual work.	6.63	5.86	1.04	8.16	Atorvastating
4-Jan-2005	In Toronto. No Exercise for 2 week. Holiday Period.				18.1	Fenofibrate
2-Mar-2005	In Toronto. Exercise in form of heavy manual work.	2.25	5.07	1.19	7.4	Metformin, Fenofibrate
8-Mar-2006	In India. Exercise in form of Walking	2.56	6.81	2	6.67	Metformin, Glyburide
30-Mar-2006	In India. Exercise in form of Walking	1.93	5.2	1.4	5.11	Metformin, Glyburide, Atorvastating
23-Sep-2006	In Toronto. Exercise in form of heavy manual work.	3.73	4.38	.96	11.5	Metformin, Glyburide, Atorvastating
28-Dec-2006	In Toronto. Exercise in form of heavy manual work.	4.79	4.56	1.13	8.2	Metformin, Rosiglitazone, Atorvastating
17-Apr-2007	In Toronto. Exercise walking and climbing stairs.	2.27	3.84	1.22	7.9	Metformin, Rosiglitazone, Fenofibrate
7-Mar-2008	In Toronto. Exercise walking and climbing stairs.	3.14	5.84	.98	9.2	Metformin, Rosiglitazone, Fenofibrate
28-Mar-2009	In Toronto. Exercise walking and climbing stairs.	3.16	5.3	1.19	11.9	Metformin, Rosiglitazone, Fenofibrate
12-Dec-2009	In Toronto. Exercise walking and climbing stairs.	4.18	6.39	1.08	11.8	Metformin, Rosiglitazone, Fenofibrate
26-May-2010	In Toronto. Exercise walking and climbing stairs.	3.25	4.92	1.17	14.7	Metformin, Rosiglitazone, Gliclazide, Fenofibrate, Atorvastating
Jul – Sep 2010	Diagnosed with Chronic form of Toxic Metal Toxicity and Started Treatment for it.					
6-Dec-2010	In Toronto. Not much Exercise.	4.63	5.79	1.30	14.6	Metformin, Gliclazide, Atorvastating
29-Jan-2011	An Ultra Sound Reveled, a small cyst in right kidney and Fatty Liver Infiltration.					
8-Feb-2011	In Toronto. Not much Exercise.	5.48	5.42	1.27	11.8	Metformin, Insulin, Atorvastating
28-Apr-2011	An repeated Ultra Sound revels gradually enlarging cyst in right kidney, Fatty Liver and Mild Hepatomegaly.					
9-May-2011	In Toronto. Strict Diet and Moderate level of Exercise	2.81	4.77	1.2	12	Metformin, Herbal, Fenofibrate.
21-July-2011	In Toronto. Strict Diet and Moderate level of Exercise				6.9	Metformin, Fenofibrate.

Table 2: Lab Experiments Conducted on Gana Kiritharan.

My first two medical reports may enough to suspect that I may be suffering from Metabolic Syndrome. Further details tests may have helped to correct diagnose. When I started to take Insulin, it not only brought any big improvement but my BP started to go up. This only led me to search for more explanation about my medical problem and help me to find out the words Insulin Resistance, Hyperinsulinemia and Metabolic Syndrome. Above details presented in following graph for easy understanding of fluctuation.

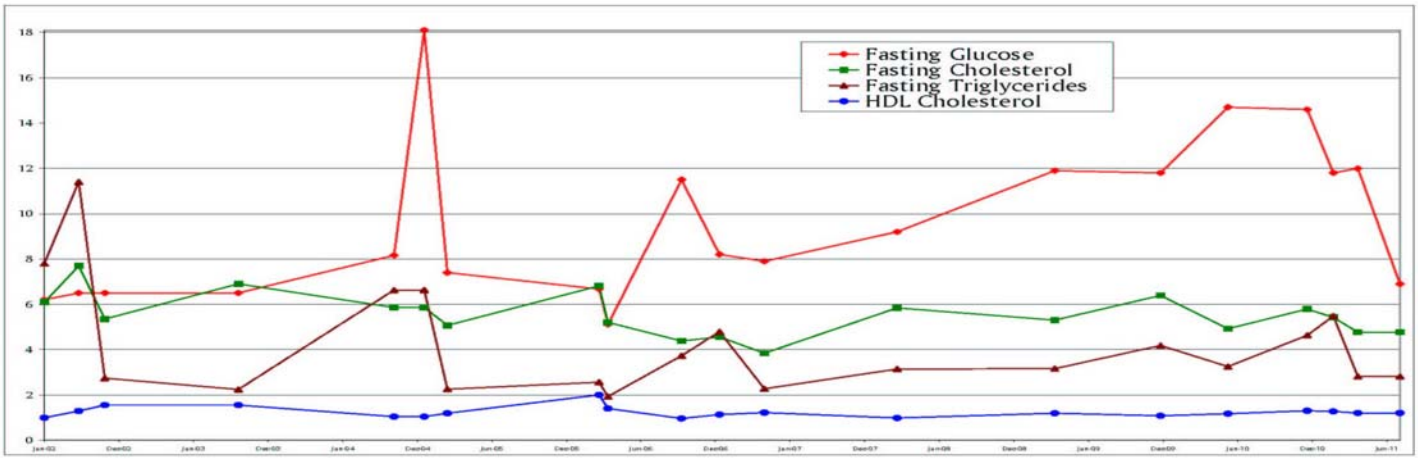
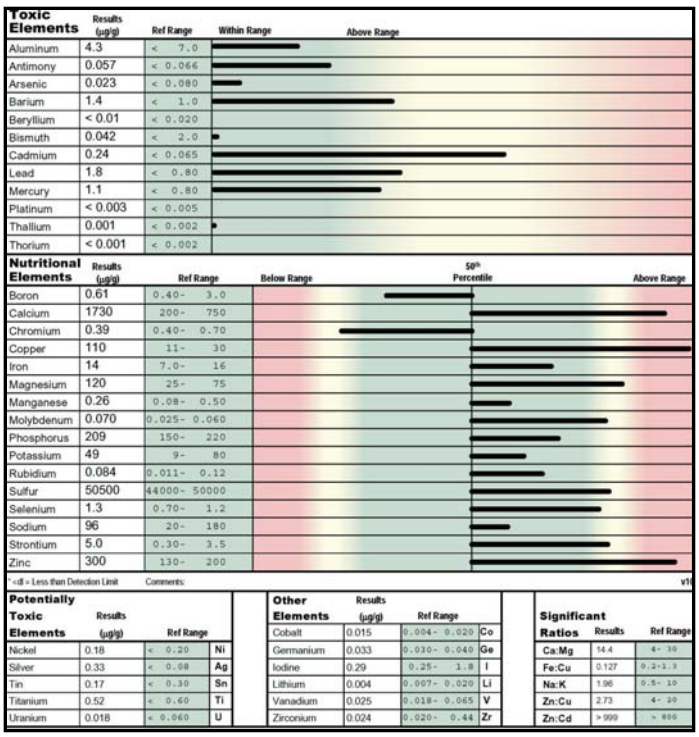


Fig 1: Fluctuation of Gana Kiritharan's Fasting Blood Glucose, Cholesterol/HDL and Triglyceride Value.

Above graph may explain how some values are changing over last few years. Though medication, food and exercise habit may be responsible for some improvement, the fact whether I was being exposed to the toxic metals environment may be the important factor determining the value.

When I realized I may be a victim of chronic form of Toxic Metal Toxicity I end up in a big confusion. First thing the reason for the toxicity may be a criminal intention. Based on previous experience I was not able to call Police immediately. Secondly that may be the first time I am hearing about Mercury Poisoning. Though we studied about several poisoning materials at my medical studies I do not remember some body taught me mercury poisoning in detail. When I approached medical professional who were treating me I experienced several denials and refusals. My family doctor told me in his 20 years of career he never seen a patient with mercury poisoning. When Ontario health care system failed order proper lab reports, I went on my own and obtained following reports which may explain my toxic status. Appropriate explanations follows the reports.

Diagnosing Toxic Metal Toxicity; Still a Challenge for Patient and Medical Profession:



Toxic Elements	Results (µg/g)	Ref Range	Within Range / Above Range
Aluminum	4.3	< 7.0	
Antimony	0.057	< 0.066	
Arsenic	0.023	< 0.080	
Barium	1.4	< 1.0	
Beryllium	< 0.01	< 0.020	
Bismuth	0.042	< 2.0	
Cadmium	0.24	< 0.065	
Lead	1.8	< 0.80	
Mercury	1.1	< 0.80	
Platinum	< 0.003	< 0.005	
Thallium	0.001	< 0.002	
Thorium	< 0.001	< 0.002	

Nutritional Elements	Results (µg/g)	Ref Range	Below Range / 50th Percentile / Above Range
Boron	0.61	0.40- 3.0	
Calcium	1730	200- 750	
Chromium	0.39	0.40- 0.70	
Copper	110	11- 30	
Iron	14	7.0- 16	
Magnesium	120	25- 75	
Manganese	0.26	0.08- 0.50	
Molybdenum	0.070	0.025- 0.060	
Phosphorus	209	150- 220	
Potassium	49	9- 80	
Rubidium	0.084	0.011- 0.12	
Sulfur	50500	44000- 50000	
Selenium	1.3	0.70- 1.2	
Sodium	96	20- 180	
Strontium	5.0	0.30- 3.5	
Zinc	300	130- 200	

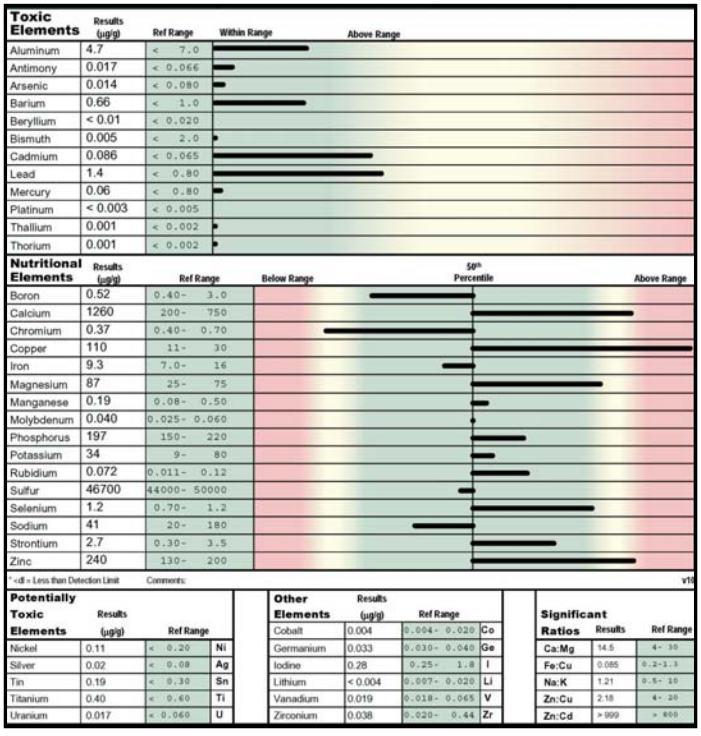
* <dl = Less than Detection Limit Comments: v10

Potentially Toxic Elements	Results (µg/g)	Ref Range	
Nickel	0.18	< 0.20	Ni
Silver	0.33	< 0.08	Ag
Tin	0.17	< 0.30	Sn
Titanium	0.52	< 0.60	Ti
Uranium	0.018	< 0.060	U

Other Elements	Results (µg/g)	Ref Range	
Cobalt	0.015	0.004- 0.020	Co
Germanium	0.033	0.030- 0.040	Ge
Iodine	0.29	0.25- 1.8	I
Lithium	0.004	0.007- 0.020	Li
Vanadium	0.025	0.018- 0.065	V
Zirconium	0.024	0.020- 0.44	Zr

Significant Ratios	Results	Ref Range
Ca:Mg	14.4	4- 30
Fe:Cu	0.127	0.2-1.3
Na:K	1.96	0.5- 10
Zn:Cu	2.73	4- 20
Zn:Cd	> 999	> 800

Fig 2.1: Test Conducted in July 2010



Toxic Elements	Results (µg/g)	Ref Range	Within Range / Above Range
Aluminum	4.7	< 7.0	
Antimony	0.017	< 0.066	
Arsenic	0.014	< 0.080	
Barium	0.66	< 1.0	
Beryllium	< 0.01	< 0.020	
Bismuth	0.005	< 2.0	
Cadmium	0.086	< 0.065	
Lead	1.4	< 0.80	
Mercury	0.06	< 0.80	
Platinum	< 0.003	< 0.005	
Thallium	0.001	< 0.002	
Thorium	0.001	< 0.002	

Nutritional Elements	Results (µg/g)	Ref Range	Below Range / 50th Percentile / Above Range
Boron	0.52	0.40- 3.0	
Calcium	1260	200- 750	
Chromium	0.37	0.40- 0.70	
Copper	110	11- 30	
Iron	9.3	7.0- 16	
Magnesium	87	25- 75	
Manganese	0.19	0.08- 0.50	
Molybdenum	0.040	0.025- 0.060	
Phosphorus	197	150- 220	
Potassium	34	9- 80	
Rubidium	0.072	0.011- 0.12	
Sulfur	46700	44000- 50000	
Selenium	1.2	0.70- 1.2	
Sodium	41	20- 180	
Strontium	2.7	0.30- 3.5	
Zinc	240	130- 200	

* <dl = Less than Detection Limit Comments: v10

Potentially Toxic Elements	Results (µg/g)	Ref Range	
Nickel	0.11	< 0.20	Ni
Silver	0.02	< 0.08	Ag
Tin	0.19	< 0.30	Sn
Titanium	0.40	< 0.60	Ti
Uranium	0.017	< 0.060	U

Other Elements	Results (µg/g)	Ref Range	
Cobalt	0.004	0.004- 0.020	Co
Germanium	0.033	0.030- 0.040	Ge
Iodine	0.28	0.25- 1.8	I
Lithium	< 0.004	0.007- 0.020	Li
Vanadium	0.019	0.018- 0.065	V
Zirconium	0.038	0.020- 0.44	Zr

Significant Ratios	Results	Ref Range
Ca:Mg	14.5	4- 30
Fe:Cu	0.085	0.2-1.3
Na:K	1.21	0.5- 10
Zn:Cu	2.18	4- 20
Zn:Cd	> 999	> 800

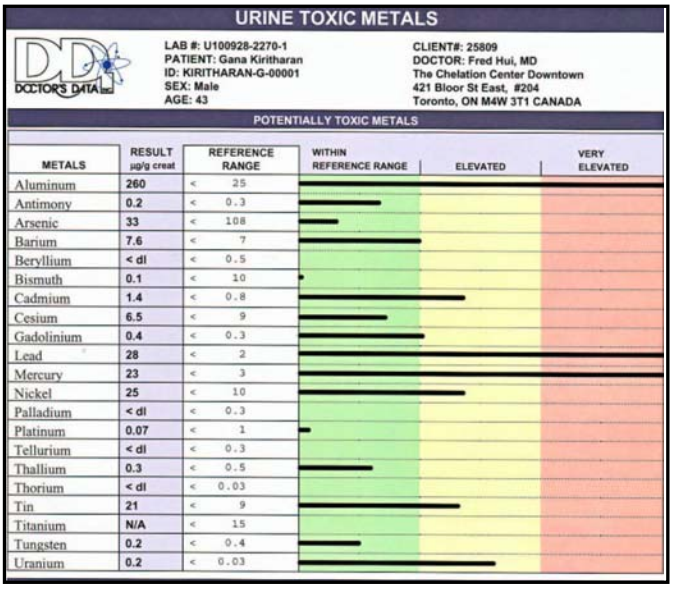
Fig 2.2: Test Conducted in July 2011 (After 1 Year)

Fig 2: Toxic Metals in Hair Mineral Analysis Report. (For Report in High Resolution Please Visit **http://www.gkiri.com)**

When a person need to be checked for chronic form of mercury or any other toxic metal toxicity, measuring either blood or random urine metal concentration may have little usefulness. 24 hours urine metal concentration may give some information but rarely performed. Checking fecal concentration of these toxic metals may explain how much being excreted through bile, again this test rarely performed. Most useful test may be analyzing mineral composition of the hair. In a normal adult person hair grow at the rate of 1 mm per day. So when you take a 1 inch hair, you are analyzing the nutritional supply for the hair follicle over a period of month. In addition hair may contain 5% or more sulfur in it. Toxic metals in the body usually circulate attached to this sulfur got concentrated in hair. This will happen even the circulation amount is a small one.

In my hair mineral analysis Toxic Metal like Cadmium, Lead and Mercury found to be concentrated in hair in large amount. After 1 year Chelation some of this toxic metal level has came down. Also my hair mineral analysis confirms some abnormality in nutritional status. While some nutritional elements in excess, some others in deficiency. This may be due to secondary effect of Toxic Metal Toxicity and the Chelation therapy followed.

When hair mineral analysis confirms some abnormality next useful test may be Challenged Urine Toxic Metal report. This test; when performed improperly; can bring serious damages for the body. If a decision is made to perform Challenged Urine Toxic Metal test, it should be done under proper medical supervision. Pictures on the following page represent various Challenged Urine test conducted on my body.



URINE TOXIC METALS

DOCTOR'S DATA

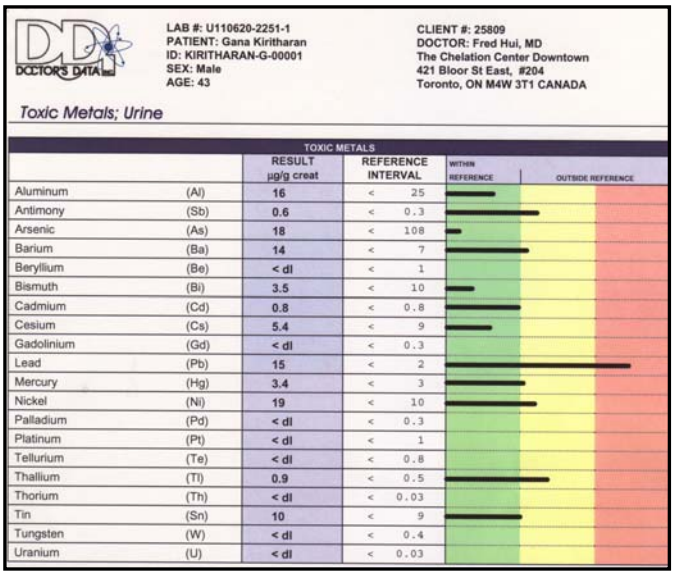
LAB #: U100928-2270-1
PATIENT: Gana Kiritharan
ID: KIRITHARAN-G-00001
SEX: Male
AGE: 43

CLIENT#: 25809
DOCTOR: Fred Hui, MD
The Chelation Center Downtown
421 Bloor St East, #204
Toronto, ON M4W 3T1 CANADA

POTENTIALLY TOXIC METALS

METALS	RESULT µg/g creat	REFERENCE RANGE	WITHIN REFERENCE RANGE	ELEVATED	VERY ELEVATED
Aluminum	260	< 25			
Antimony	0.2	< 0.3			
Arsenic	33	< 108			
Barium	7.6	< 7			
Beryllium	< dl	< 0.5			
Bismuth	0.1	< 10			
Cadmium	1.4	< 0.8			
Cesium	6.5	< 9			
Gadolinium	0.4	< 0.3			
Lead	28	< 2			
Mercury	23	< 3			
Nickel	25	< 10			
Palladium	< dl	< 0.3			
Platinum	0.07	< 1			
Tellurium	< dl	< 0.3			
Thallium	0.3	< 0.5			
Thorium	< dl	< 0.03			
Tin	21	< 9			
Titanium	N/A	< 15			
Tungsten	0.2	< 0.4			
Uranium	0.2	< 0.03			

Fig 3.1: Challenged (DMPS & CaEDTA) Urine Test on 27th September 2010



DOCTOR'S DATA

LAB #: U110620-2251-1
PATIENT: Gana Kiritharan
ID: KIRITHARAN-G-00001
SEX: Male
AGE: 43

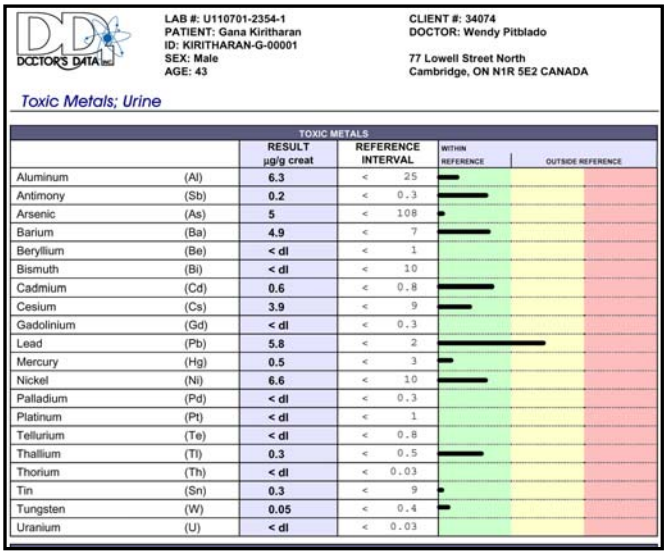
CLIENT #: 25809
DOCTOR: Fred Hui, MD
The Chelation Center Downtown
421 Bloor St East, #204
Toronto, ON M4W 3T1 CANADA

Toxic Metals; Urine

TOXIC METALS

		RESULT µg/g creat	REFERENCE INTERVAL	WITHIN REFERENCE	OUTSIDE REFERENCE
Aluminum	(Al)	16	< 25		
Antimony	(Sb)	0.6	< 0.3		
Arsenic	(As)	18	< 108		
Barium	(Ba)	14	< 7		
Beryllium	(Be)	< dl	< 1		
Bismuth	(Bi)	3.5	< 10		
Cadmium	(Cd)	0.8	< 0.8		
Cesium	(Cs)	5.4	< 9		
Gadolinium	(Gd)	< dl	< 0.3		
Lead	(Pb)	15	< 2		
Mercury	(Hg)	3.4	< 3		
Nickel	(Ni)	19	< 10		
Palladium	(Pd)	< dl	< 0.3		
Platinum	(Pt)	< dl	< 1		
Tellurium	(Te)	< dl	< 0.8		
Thallium	(Tl)	0.9	< 0.5		
Thorium	(Th)	< dl	< 0.03		
Tin	(Sn)	10	< 9		
Tungsten	(W)	< dl	< 0.4		
Uranium	(U)	< dl	< 0.03		

Fig 3.2: Challenged (DMPS & CaEDTA) Urine Test on 16th June 2011 (After 10 Months)



DOCTOR'S DATA

LAB #: U110701-2354-1
PATIENT: Gana Kiritharan
ID: KIRITHARAN-G-00001
SEX: Male
AGE: 43

CLIENT #: 34074
DOCTOR: Wendy Pitblado

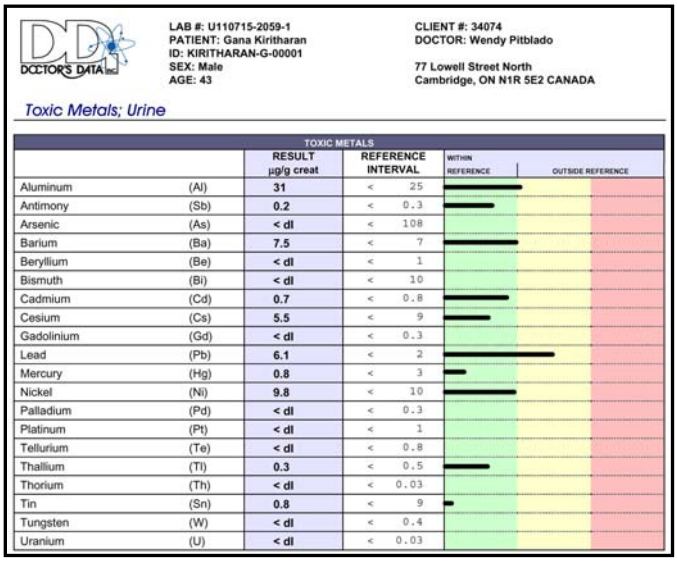
77 Lowell Street North
Cambridge, ON N1R 5E2 CANADA

Toxic Metals; Urine

TOXIC METALS

		RESULT µg/g creat	REFERENCE INTERVAL	WITHIN REFERENCE	OUTSIDE REFERENCE
Aluminum	(Al)	6.3	< 25		
Antimony	(Sb)	0.2	< 0.3		
Arsenic	(As)	5	< 108		
Barium	(Ba)	4.9	< 7		
Beryllium	(Be)	< dl	< 1		
Bismuth	(Bi)	< dl	< 10		
Cadmium	(Cd)	0.6	< 0.8		
Cesium	(Cs)	3.9	< 9		
Gadolinium	(Gd)	< dl	< 0.3		
Lead	(Pb)	5.8	< 2		
Mercury	(Hg)	0.5	< 3		
Nickel	(Ni)	6.6	< 10		
Palladium	(Pd)	< dl	< 0.3		
Platinum	(Pt)	< dl	< 1		
Tellurium	(Te)	< dl	< 0.8		
Thallium	(Tl)	0.3	< 0.5		
Thorium	(Th)	< dl	< 0.03		
Tin	(Sn)	0.3	< 9		
Tungsten	(W)	0.05	< 0.4		
Uranium	(U)	< dl	< 0.03		

Fig 3.3: Challenged (DMSA) Urine Test on 30th June 2011 (After Two Weeks)



DOCTOR'S DATA

LAB #: U110715-2059-1
PATIENT: Gana Kiritharan
ID: KIRITHARAN-G-00001
SEX: Male
AGE: 43

CLIENT #: 34074
DOCTOR: Wendy Pitblado

77 Lowell Street North
Cambridge, ON N1R 5E2 CANADA

Toxic Metals; Urine

TOXIC METALS

		RESULT µg/g creat	REFERENCE INTERVAL	WITHIN REFERENCE	OUTSIDE REFERENCE
Aluminum	(Al)	31	< 25		
Antimony	(Sb)	0.2	< 0.3		
Arsenic	(As)	< dl	< 108		
Barium	(Ba)	7.5	< 7		
Beryllium	(Be)	< dl	< 1		
Bismuth	(Bi)	< dl	< 10		
Cadmium	(Cd)	0.7	< 0.8		
Cesium	(Cs)	5.5	< 9		
Gadolinium	(Gd)	< dl	< 0.3		
Lead	(Pb)	6.1	< 2		
Mercury	(Hg)	0.8	< 3		
Nickel	(Ni)	9.8	< 10		
Palladium	(Pd)	< dl	< 0.3		
Platinum	(Pt)	< dl	< 1		
Tellurium	(Te)	< dl	< 0.8		
Thallium	(Tl)	0.3	< 0.5		
Thorium	(Th)	< dl	< 0.03		
Tin	(Sn)	0.8	< 9		
Tungsten	(W)	< dl	< 0.4		
Uranium	(U)	< dl	< 0.03		

Fig 3.4: Challenged (ALA & DMSA) Urine Test on 14th July 2011 (After Two Weeks)

Fig 3: Challenged Urine Toxic Metal Reports. (For Report in High Resolution Please Visit **http://www.gkiri.com)**

Fig 3.1 give the challenged urine test conducted at the beginning of the treatment. There is large amount of toxic metals being excreted through urine. This may be due to three reasons. 1) As I just started treatment, the Toxic Metals in my body started to come out. 2) I may got poisoned severely just before this period. 3) As I did not take NAC in large amount, Kidney may me the only source of excretion of these toxic metals (Only small amount through Liver). Fig 3.2 and 3.3 gives Challenged urine test conducted after 10 months of Chelation (One by IV medication (DMPS & CaEDTA) and other by Oral medication(DMSA)). It may explain how the toxic metals being excreted from the body has reduced because of the Chelation program including large amount of NAC (Which may help to remove Toxic Metals through Liver). These picture also explain difference between IV and Oral Chelation therapy. Though, IV can bring out the Toxic Metals fast out of the body, Oral Chelation also equally effective. Fig 3.4 gives challenged urine test conducted after taking Alpha Liphoic Acid (ALA) for 24 hours before starting the test. This test may explain how Aluminum like toxic metals secretion got increased by ALA.

My Battle with Toxic Metal Poisoning:

I do not know how long I am being poisoned with these toxic metals and what are the possible causes; but for last one year; as Ontario Medical and Judicial system are failing to come forward to protect me; I am fighting a personal battle with a series of poisoning attempts with criminal intention.

The possible incidents of poisoning attempts, changes in treatment of toxic metal toxicity and diabetes and changes in fasting blood glucose value of 2010 - 2011 are given on following table and graph. I will divide the last one year as following time frames for easy understanding. You may see high fluctuation of my Fasting Blood Glucose value. Though various variables in the treatment of diabetes and toxic metal toxicity can caused these, most logical explanation may be I was exposed to toxic metal environment.

TIME FRAME	POISONING SITUATION DETAILS	CHELATING THERAPY FOLLOWED	DIABETIC MEDICATION FOLLOWED	CHANGE IN FASTING GLUCOSE
May 19 2010 – Aug 17 2010	I started to avoid suspected poisoned food. There may be couple of attempts. On 5th of August 2010, I received the First confirming medical report (Hair Mineral Analysis). On August 17th 2010 I tried to make a Police Complaint to Toronto Police Services (TPS) but they failed to accept my complaint.	Started supportive medication on 22nd June 2010 and started DMSA from 6th July 2010. I added NAC to the program one week after. DMSA dose just 2 – 8 mg/Kg body weight per day. (Recommended 30 mg/Kg)	For few weeks **Metformin 3000mg Rosiglitazone 8 mg Glyburide 90 mg** Then **Metformin 2000mg Glyburide 60 mg**	From 14.7 mmol/L came down to 7.4 mmol/L on
Aug 18 2010 – Sep 26 2010	As I was abandoned by TPS there may be several sever attempt to Poison me through various means.	Continuous supportive medication. Continued DMSA and NAC till 13th Sep 2010.	Maintained **Metformin 2000mg Glyburide 60 mg**	Went up and Reached 17.4 mmol/L
Sep 27 2010 - Nov 25 2010	As I went into formal medical care number of attempts to poison me may reduced but there may be one or more attempts.	Challenged urine test was conducted on 27 Sep (DMPS, CaEDTA). I restarted DMSA after 3 days .	Maintained **Metformin 2000mg Glyburide 60 mg**	Reached a Value below 10mmol/L but soon went up.
Nov 26 2010 – Jan 24 2011	Number of Attempt to Poison me may have reduced, but few attempts may be there.	Increased DMSA dose to 15 mg/Kg. Started to add NAC in higher doses.	**Metformin 2000mg Insulin 16 Units/Day**	Stabilized between 10 – 12 mmol/L
Jan 25 2011 – Mar 14 2011	I started to experience unusual postal delays. DMSA supply also interrupted for two weeks. Attempts to Poison me may have increased.	Skipped one week DMSA. High dose of NAC. I started to add ALA to the chelating program.	**Metformin 2000mg Insulin 20 - 26 Units/Day**	Went up and stay between 10 – 14 mmol/L
Mar 15 2011 – April 30 2011	There may be One or More sever attempt.. I took more precaution (sealed ventilation duct of my room)	I took DMSA and ALA.. Increased the dose of Buffered Vit C and NAC.	**Metformin 2000mg Diet, Exercise, Herbal**	Stay between 10. – 16 mmol/L
May 1 2011 - Sep 30 2011	The poisoning attempts may have reduced or even stopped.	I maintained DMSA. High dose of NAC and Vit C. Conducted 3 different Challenged Urine tests.	**Metformin 2000 mg Diet, Exercise.**	Stayed around 7 mmol/L
Oct 1 2011 – Dec 12 2011	There may be attempt to poison with Arsenic.	DMSA, NAC, Vit C, ALA, and Coriander	**Metformin 2000 mg Diet, Exercise.**	Went Above 9 mmol/L

Table 3: Gana Kiritharan's battle with Toxic Metal Poisoning during 2010 – 2011 period.

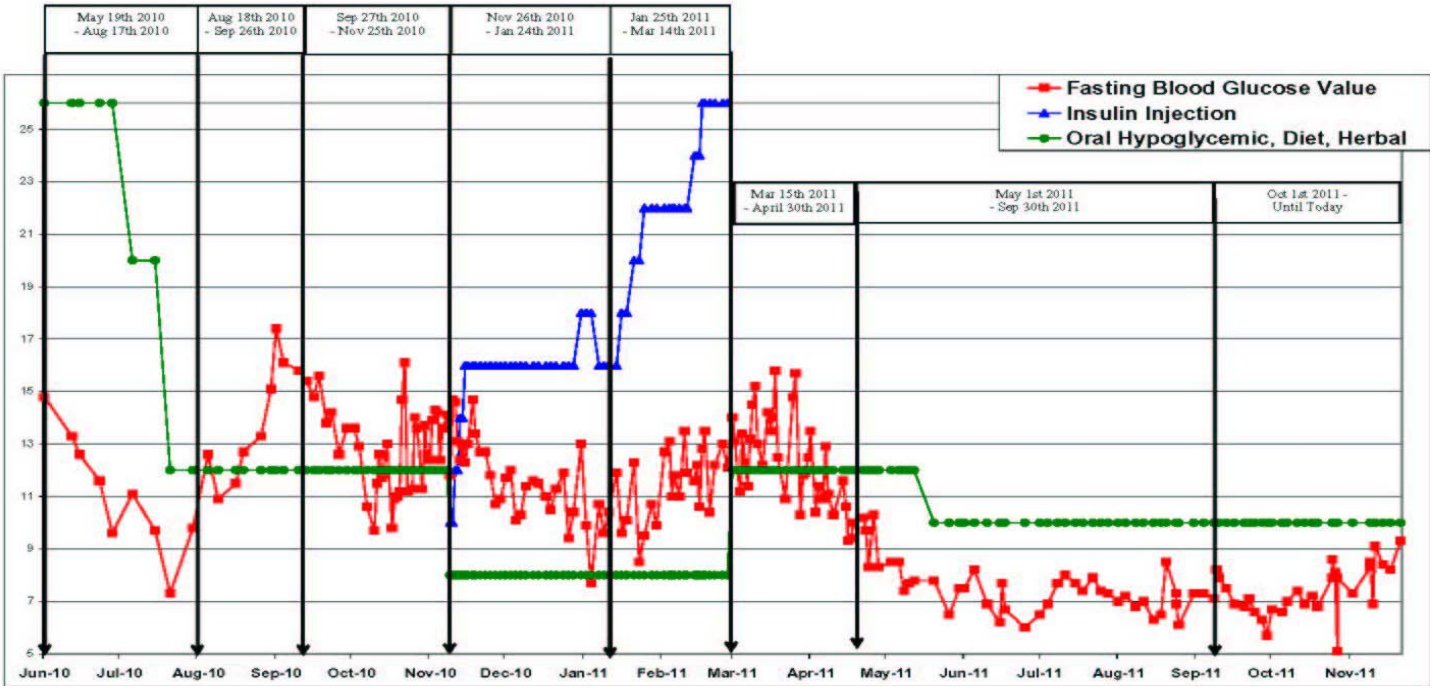


Fig 4: Gana Kiritharan's Battle with Toxic Metal Poisoning during 2010 – 2011.

Pathology of Toxic Metal Toxicity [1, 2, 3, 4]:

Let try to have an understanding about how toxic metals causes toxicity to human body so that how toxic metals may be the cause of my medical problems may be understood. Toxic metals cause toxicity to human body mainly by interfering in protein synthesis and their functions. Heavy metals react with proteins and forms highly insoluble sulfides[3].

To explain this in details; Proteins are made of 20 or more amino acids. In these amino acids two or more (Methionine, Cysteine) contains sulfur in their composition. The sulfhydryl (-- SH) group of Cysteine is important in two ways. Usually proteins are synthesized as a single long polypeptide chain and then folded into different shapes and develop their functionality. The sulfhydryl group of Cysteine amino acid play important role in the folding of polypeptide chains. Cysteine molecules in two different location of single polypeptide interact and form disulfide bonds (--S—S--) bonds and results in folding of polypeptide chains. The heavy metals are by binding with sulfhydryl groups of Cysteine molecules prevents proper folding of polypeptide chains. Again many enzymes has a one or more free sulfhydryl groups which react with nutritional elements like Zn^{++} or other coenzymes. Heavy metals may interact with this free sulfhydryl groups of enzymes and other proteins, resulting in loss of their functions.

Above explanation may help to understand why I am claiming toxic metals as the important causes of my medical problems. If you look at Insulin or Insulin Receptors both first synthesized as a single polypeptide chain then folded and held in their functional shape using disulfide bonds. Then a potion of this polypeptide chain gets removed and receives functionality. So Cadmium and other Toxic Metals may interfere with this folding of theses proteins one or other way. Fickova M et al, (1) and Lei L J et al, (2) already demonstrated the influence of Cadmium on Insulin and Insulin Receptor synthesis.

In their research Lei L J et al, (2) demonstrated cadmium do not affect serum insulin level. The reason may be even when cadmium interfere with Insulin synthesis pancreas has a high reserve of production and capable of pumping out normal insulin level. However synthesis and availability of Insulin receptors are markedly determined by Cadmium and other toxic metal poisoning. This was demonstrated by Fickova M et al, (1) in detail in their research. The reason may be two. First there may not be enough reserve of synthesis of Insulin Receptors as Insulin. Secondly the disulfide bond between the first and second pair of alpha and beta chain may be more susceptible for toxic metal toxicity. We can leave the responsibility of finding correct answer to future biochemistry research. My treatment experience also support above research finding. During my treatment, when I tried to take Insulin injection, it not only failed to bring any better control but also gave complications which can be attributed to Hyperinsulinemia.

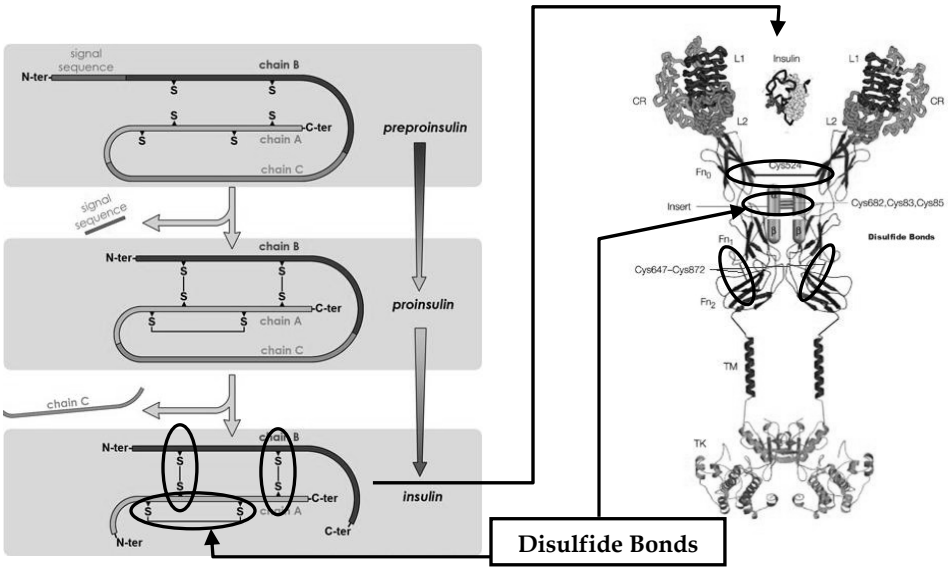


Fig 5: Insulin and Insulin Receptor.

Picture Resource:

1) **Beta Cell Biology Consortium (2004).**
2) **Pierre De Meyts & Jonathan Whittaker : Structural Biology of Insulin and IGF1 receptors : Implication for drug design : Natural Reviews of Drug Discovery 1, 769 – 783 (October 2002).**

Chelation; Treating Toxic Metal Toxicity [6, 7]:

After I started treatment for my Toxic Metal Toxicity I experienced high level of fluctuation of my Fasting Blood Glucose value. During last 1 year my fasting serum glucose value went above 16 mmol/L twice and it went below 8 mmol/L twice. As most of this time period I maintained a stable dose of oral hypoglycemic drugs, I blame level of toxic metal toxicity in my body as the main reason for this fluctuation. To understand this you should have a better understanding of the word Chelation and other antitoxins which helped me to achieve improvements in blood glucose level.

By definition Chelation means "The formation or presence of bonds (or other attractive interactions) between two or more separate binding sites within the same ligand and a single central atom.[9]" Usually this central atom is a metal ion. In medical sense Chelation means removing toxic metals from body by using medical substances. The medical substances used in Chelation form two or more bonds with toxic metals and help to remove them through liver or kidney.

Though I am taking specific Chelation medications which may helped to remove these toxic metals from body, I am also taking several non-specific antitoxins which may help to reduce the general toxic level of my body. I am taking Vitamin E 800 IU or more. A Normal Vitamin tablet contains 50 IU. Also I am taking 3000 mg or more Vitamin C. Normal dose id 90 – 500 mg. Also I am taking high dose of Vitamin A, B and D. I am also taking higher dose of minerals but excluding Fe and Cu. The specific chelating medication I am taking can be divided into two groups. First group is synthetic medical substances. The synthetic medical substance I am taking is DMSA (Meso-2-3-dimercaptosuccinic acid). It has two sulfhydryl (-- SH) groups which form tight bonds with toxic metals and remove them safely through kidney. Important information about these synthetic chelators, they usually do not go into the cells. They only remove toxic metals from interstitial fluids or toxic metals circulating in the blood. The second group is more natural substances. The first one I am taking is NAC (N-Acetylcysteine) which is a precursor of Glutathione. Glutathione is the body's natural chelators. Unlike synthetic chelators, Glutathione go into the cells and bring out the toxic metals. Also liver Glutathione level is important in determining amount of toxic metals being excreted through liver. NAC helps to maintain good liver Glutathione level and helping in excretion of toxic metals through liver.

When I was taking DMSA alone, without NAC the fasting blood glucose value dropped below 10 mmol/L. But when I took DMSA with NAC in proper way the value went below 8 mmol/L twice. When I was taking low dose of DMSA, but tried to take more NAC, I experienced sudden increase of Fasting and Post Prandial blood glucose levels. It may be because NAC mobilized toxic metal stores from intracellular space and caused increased toxicity.

Another naturally occurring substance I am trying to add to my chelating program is ALA (Alpha Liphoic Acid). ALA has a property of crossing blood brain barrier. If taken at early stage of chelating program, it may bring toxic metals into the brain. I started to add it only after 6 months of chelating program of DMSA and NAC. After I started to add ALA to my Chelation therapy I experienced easing of my CNS symptoms of Toxic Metal Toxicity. But my fasting blood glucose level started to go up by small level. It may be due to ALA mobilizing intracellular and CNS stores of these Toxic metals.

Few important questions remain unanswered. Why I am not able to achieve a sustained control of diabetic problem and whether treatment for Toxic Metal Toxicity will give me a long lasting cure from Metabolic syndrome. The answer may depend on two issues. Whether I will get an environment free of these toxic metals to live and whether I will receive necessary financial resources to get best possible treatment for theses toxic metal toxicity. Latest attempt to poisoning me may have happened on March – April 2011; that is almost one year after I discovered I am being poisoned with criminal intention. Many times I left with one or two dollars in my pocket waiting for next pay check. In year 2004 and 2007 I experience interference in my employment opportunity and hours of work as well. Several experts recommend Infrared Sauna as it will help to remove toxic metals through skin. I like to by one of this (may cost around CAD $ 1500.00) but I do not have enough money.

Women's Medical Problems [3,9] :

Why I am claiming Toxic Metal Toxicity is a common but ignored medical problem is my mother's possible long term experience with this toxicity. My mother's first chronic medical problem may be Bronchial Asthma. She probably got this problem in her 30s. Next problem she experienced, sleep disturbances and disturbing dreams which may continue through out her life. Again during her late 30s on one night she experienced a panic attack and family doctor may have to give some thing to make her sleep. My mom was a vegetarian but as doctors advised her, she started to eat non-veg food from early 40s and her symptoms may get eased to some extent. Next medical problem she experienced in her 40s is Hypothyroidism. During her 40s and 50s she developed frozen shoulder and Herpes Zoster. From early 50s she may experienced receding gums. And finally on her 61st year of age she died of (antero septal) myocardial infarction.

When I searched for the possible cause for her toxicity, I realized she may get it from fire woods used in the kitchen. If my conclusion is correct many other women who were exposed to kitchen smoke also suffered toxic metal toxicity and experienced related medical problems. When searched for more evidence I found two evidences. First one is in Tamil Literature. Thruvalluvar; the person considered philosopher of Tamil wisdom; when describing woman leadership uses following words.

"No virtuous deed, no seemly wealth, no pleasure, rests with them who live obedient to their wives' behests."

If you look at Tamil Literature similar comments or stories describing woman psychology can be found in several places. Toxic Metal toxicity can cause several psychological disturbances on victims. Feeling of insecure, feeling of suspicious and panic attacks all associated with Cadmium and other toxic metal toxicity.

Second Evidence I found is menopausal syndrome suffered my woman share several similar clinical features with toxic metal toxicity. The clinical features of Menopausal syndrome, hot flushes and night sweats, difficulty falling asleep, cognitive difficulties, depression, irritability and decalcification of bone all share with toxic metal toxicity. If we can answer how estrogen may protect woman till menopause it may open new intellectual discussion. Estrogen is a steroid synthesized in body from cholesterol. It has a 2 free – OH group. Whether it form oxide with toxic metals and work as a chelators or –CH3 (Methyl) compounds released on synthesis of estrogen give some temporary protection against these toxic metals is intellectual question for future biochemical researches.

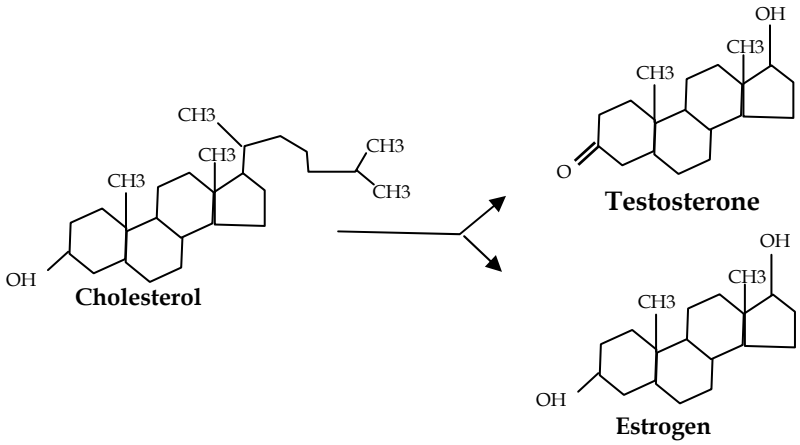


Fig : 6 Estrogen Synthesis

Unacceptable Level of Negligence:

When I realized that I am a victim of poisoning with mercury with criminal intention one of the major challenges I faced on properly diagnosed with this toxic metal toxicity and receiving treatment is unacceptable level of negligence in health care profession regarding this medical situation. When I realized I may be poisoned with mercury with criminal intention I was not able to call police immediately. The well organized nature and powerful authority of people behind this criminal conspiracy has prevented me even expecting an accountable court order from Ontario Judiciary. Even though I tried to make police complaint on 17th August 2010; when I got the first confirming medical report; I was not able to give any big hope on Ontario Judiciary to protect me from these chain of criminal offences I was experiencing. I do not know the reason, whether it is institutionalized racism or high level of corruption, Ontario Judiciary has shown high level of ignorance, irresponsibility and incompetence on protecting me from the chain of criminal activity I am experiencing.

On Medical side, when I called Poison Center at 416 813 5900, the only help (?) I received an advice of talked to

your family doctor. My family doctor may ordered for a wrong medical report (Blood Mercury) to check whether I am suffering from chronic form of mercury poisoning. The received blood mercury report gives value 15.4 nmol/L. This may confirm certain amount of toxicity. Despite several public documents giving a reference value of 0 – 3 nmol/L my report give a value of < 18.0 nmol/L as the reference range. This lead many medical professionals to interpret the report as normal. My argument that mercury is an unwanted toxic metal and 0 nmol/L may be the healthy level was unheard by medical professionals. This forced me to walk away from Ontario Health Care system and spend some of my pocket money and obtain health report analyzing my hair and urine which explained my toxic status.

Even after obtaining the health report confirming my toxicity, the problem may not be solved. A consultant refused to look into the report and described chelating doctors as money makers and my cry is often described as various psychiatric problems. Why is this refusal and denial? If you look back at the history, you may find intellectuals or other forms of social leadership (religious, political and business) had refused to accept the truth told to them on time. Let us discuss the reasons for the challenges faced by scientist to bring out the truth so that not only my medical problem got accepted and I and similar patients receive better treatment but future scientist can improve knowledge with fewer hindrances.

The first challenge is vision. Human vision has a limitation and our explanations about the environment mainly based on our vision. Some people born with gift of seeing beyond the normal vision and give better explanation about our environment and its problems. Another thing increases our vision is technology. For an example telescope helped to have a better look into the universe and give a detailed explanation. What is the vision problem with Toxic Metal Toxicity? The same way Telescope brought better understanding about universe, it is the microscope brought better understanding about smaller objects. There was a time scientist fought with religion to dissect human body and give better explanation for gross anatomy. Then the next level of battle may have happened when scientist tried to examine human body parts under microscope. Today problem we may have to go to the next level of analysis that is biochemical level. The technology we have today has limitation on giving a black and white (or colour full) picture of what is happening at biochemical level inside the cells. This lead to make several conclusions just based on the clinical presentation. Only people with deeper vision can understand and explain what happening at biochemical level inside a cell and help to move medical profession to next level of thinking.

Another challenge is improper distribution of social authority. When a society organized as people with better vision in one corner without much authority and people with fundamental thinking with more authority in another corner, a conflict results and truth got suppressed for a long period of time. The best documented conflict in humanity may have happened between Galileo and Rome Court. Giving the authority to the people with better vision may look like a solution, but even in modern time this rarely happens. In Thailand authority was given for a person with a vision only after the 2004 Tsunami, not before it. If you deeply look in to this problem, nowadays, weather it is mad cow disaster in UK or Tsunami in South Asia it was the fear of loosing business and short term profit motive which may put barriers on scientist bringing out truth on time and education public about an impending disaster. Today religions may have lost the social authority but the authority did not went to the scientist who need it. Instead it went to the major business institution who continuously trying to put barriers for scientist from bringing out truth for several unacceptable reasons and putting humanity in face of disaster again and again.

Another important challenge is, understanding the word science. Important argument put forward by people who disagree with Toxicity due to Toxic Metal Toxicity is, several scientific experiments fail to show any benefit from Chelating. There are several reasons for this misunderstanding. Important one, there is not jet an established and universally accepted way of treating the problem. Today medical profession has successfully established treatment methods for many medical problems. Most of these treatments are last from few days to few months. But treatment for Toxic Metal Toxicity need to followed from several months to few years. Several studies conducted regarding toxic metal toxicity followed a shortened duration of chelating therapy which may failed bring any big benefit.

An important argument I want to put forward here, what we understood by the word 'Science'. Science is a method of analysis the environment and finding solutions for it problems. It disagree any fundamental arguments and accept experiments as the way of finding solutions for the problems. But expecting all the solutions for our problems should come through proper scientific experiments is creating another religion in the name of science. If a simple observations and logical explanation can help us to bring solution for a problem, then waiting for a scientific experiment is just waste of time and money. From Aristotle to Galileo may have conducted several experiments to understand how objects were falling towards earth. But it was Newton's simple observation of a falling apple and logical explanation for it helped to define "Gravity". Today several stories of patients who benefited from treatment of Toxic Metal Toxicity may make any scientific experiments as unnecessary waste of money.

Freya Koss

March' 1998: After Having a Tooth Drilled & Filled with Mercury Amalgam

April' 2002: Four Years After Removal of Amalgam & Detox

Fig 7: Damages due to Mercury Poisoning and Recovery after Chelation. (For More Details Please Visit: http://www.toxicteeth.org)

Do Not Wait for a Disaster:

Important question arises about these toxic metals is, how common this is as a human health problem. Usually modern industrialization is blamed for exposing human health to these toxic metals but I as explained earlier when I searched for logical explanation for my mother's possible toxicity with these toxic metals I had to blame fire wood used in kitchens as the possible source. We have to accept the fact that as how microorganisms are common in our environment, toxic metals also unavoidable reality. But as humanity has established a successful way of preventing, diagnosing and treatment protocols for microorganisms, a preventing, diagnosing and treatment protocols also can be achieved for toxic metal toxicity. All can happen only after medical profession come forward to accept it as a common medical problem. When I searched WHO for correct ICD classification of my medical situation, I may fail to find a disease category saying "Chronic form of Toxic Metal Toxicity".

Important information about Toxic Metal Toxicity is difficulty in detoxifying them. Several harmful substances for human health can be easily detoxified. For an example either TB Bacilli or AIDS Virus can be killed easily by bright sun light. But when talking about detoxifying Toxic Metals, if we use the word impossible it may not be a mistake. As base elements in chemical structure they try to stay in the toxic form forever. Even we dilute them with air and water, several plants, animals and fish has the capacity to concentrate these toxic metals in their body and put it back in to the human food chain. If we really want to protect Human Health from these Toxic Metals, we may need an organized and established long term strategy to decrease the concentration of these toxic metals from our environment.

This may be why a Health Canada document titled "The Risk of Mercury Poisoning" says "The Government of Canada is working in number of areas to reduce the use and release of mercury into the environment." But unknown people are adding unspecified amount of these Toxic Metals to Toronto Eco Environment. I could not find some body, who can ask a question at these people or stop their irresponsible act.

I am calling Health Care professionals and managers not just in Canada but as a whole health care profession to not to wait for a disaster to happen but accept this medical situation and come forward to find out better prevention, diagnosis and treatment protocols.

Further Reading and Reference:

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   Abstract
   The effects of chronic cadmium exposure on adipose tissue have not been extensively reported. In adult Wistar male rats we investigated in vivo effect of 6 weeks lasting cadmium intake in drinking tap water (CdCl2 9,7 mg/l). Insulin receptors in isolated adipocytes from epididymal fat and glucose transporter protein GLUT4 content in fat tissue plasma membranes were determined. Control and Cd treated rats had similar water intake with subsequent heavy augmentation of Cd content in liver of experimental animals. In comparison with controls, Cd intake did not influence body mass increment and fat cell size, but significantly increased serum glycemia and moderately elevated insulinemia. Cadmium intake significantly reduced (approximately 50%) both, total insulin receptors number and density of the receptors in fat cells. No differences in the content of GLUT4 in crude plasma membranes of adipose tissue were observed. Diminished insulin receptors in adipocytes could account for diabetogenic effect of long lasting cadmium intake.

2. Lei LJ, Jin TY, Zhou YF: Insulin expression in rats exposed to cadmium : Department of Occupational Health, School of Public Health, Fudan University, Shanghai 200032, China.
   Abstract
   Eighteen adult SD rats were administered cadmium subcutaneously (0.5, 1.0, and 2.0 mg/kg x bw). The effects on endocrine of pancreas were assessed. The levels of cadmium and zinc in pancreas, blood and urine glucose, serum insulin and urine NAG (N-acyetyl-beta-glucosaminidase) were determined. The gene expressions of metallothionein (MT) and insulin were also measured, and the oral glucose tolerance tests (OGTT) were carried out. The contents of cadmium in pancreas in cadmium-treated rats were higher than that in the control group, which was associated with slight increase of zinc in pancreas. Cadmium-exposed rats (1.0 and 2.0 mg/kg x bw) demonstrated a marked glucose intolerance. But the levels of serum insulin did not change significantly after cadmium administration, and the UNAG had no change in Cd-treated group. The gene expression of insulin decreased in 1.0 and 2.0 mg/kg x bw cadmium-exposed groups, compared with the control group. The expression of MT-I was higher in the groups exposed to 1.0 and 2.0 mg/kg x bw cadmium while the expression of MT-II was higher in the group exposed to 2.0 mg/kg x bw cadmium. Cadmium may be accumulated in the pancreas, resulting in the change of the expression of insulin, MT-I and MT-II genes. Cadmium can influence the biosynthesis of insulin, but does not induce the release of insulin. The dysfunction of pancreas occurs earlier than that of kidney after administration of cadmium.

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9. Mazza, Danielle : Woman's health in general practice – Second Edition : Churchill Livingston : 2011.