UNEXPLAINED MORPHOGENESIS – UNIQUE PHYSIOLOGY IN RELATION TO PITUITARY GLAND

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Objective: **To determine whether enlarged pituitary gland is responsible for reversal of age into excellent health.**

Design: **A case study; correlation of the reports with physical signs and symptoms**

Tests conducted: In addition to a complete medical history and medical examination, diagnostic procedures for enlarged pituitary may include:

- Measurement of hormone levels in the blood
- Magnetic resonance imaging (MRI) – a non-invasive procedure that produces two-dimensional views of an internal organ or structure, especially the brain or spinal cord

Background

This is a case study of a healthy subject who has an excellent health with a fully functioning body and brain, a very high level of perception, interpretation and execution of daily activities. But physiology point of view his body does not correlate with any human on this planet that makes him unique in nature.

His name is Mr. Mahendra Kumar Trivedi, aging 44 years.

In Nov 1995 Mr. Trivedi started experiencing a series of changes in his physiology which is yet unexplainable. To understand these continuous processes of changes, Mr. Trivedi underwent few investigations in AUSTRALIA, CANADA and INDIA. These investigations revealed highly unusual findings of his body which were baffling to the concerned medical examiners.

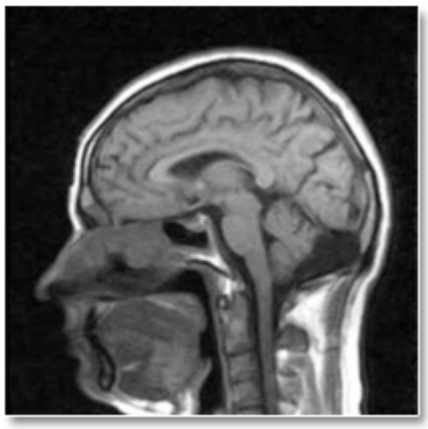
After examining, panel of doctors were curious to know whether these changes are possible with or without the interference in the hormonal system.

So the master gland of the endocrine system, “Pituitary gland”, was decided to be investigated, so Mr. Trivedi underwent for hormonal testing along with MRI of brain and spine.

Mr. Trivedi’s brain MRI Image

On MRI examination, the size of Mr. Trivedi’s pituitary fossa, also known as Sella tursica is found to be 18.5 mm (anterioposterios) by 12.8 mm. in height, which is the largest ever found in a healthy subject, whereas in medical science it is a known fact that the pituitary

gland's size is not more than 5.5 to 7.5 mm in diameter. In aging process, the size of the brain starts shrinking, so the size of the pituitary gland should not increase except in the cases of trauma or diseases.



Mr. Trivedi's brain MRI Image

According to The National Institute of Diabetes and Digestive and Kidney diseases, autopsy studies indicates that 25 percent of the US population has some form of small pituitary tumor. The vast majority of these is benign and not considered clinically significant. Only a very small number of people (about 14 in 100,000) experience health effects attributable to pituitary tumors.

It would be difficult to overstate the influence of pituitary hormones over physiologic processes. The target cells for most of the hormones produced in these tissues are themselves endocrine cells and a seemingly small initial signal are thus amplified to cause widespread effects on many cells and tissues.

The focus here is to assess the role of
(1) Few major hormones produced by pituitary gland
(2) Other enzymes, with significant emphasis on their secretion and mode of action resulting in Mr. Trivedi's unique physiology.

The growth of the skeleton is governed by a hormone produced in the pituitary gland, when this growth hormone does not function normally, the effects are easily recognized. Growth hormone stimulates growth in childhood and is important for maintaining a healthy body composition and well-being in adults. In adults it is important for maintaining muscle mass as well as bone mass. Growth hormone deficiency is associated with an increased risk for heart disease.

Age is the most important single risk factor, with your risk increasing every year you live. To keep bones strong, your body is always breaking down old bone and replacing it with new bone tissue. As people enter their forties and fifties, more bone is broken down than is replaced. Normal aging is accompanied by a number of catabolic effects, including a decrease in lean mass, increase in fat mass, and decrease in bone density. Associated with these physiologic changes is a clinical picture often referred to as the somatopause: frailty, muscle atrophy, relative obesity, increased frequency of fractures and disordered sleep.

All these signs of aging mentioned above are not observed in Mr. Trivedi.

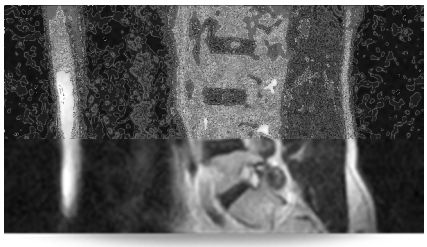
Major role of growth hormone in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-I. IGF-I stimulates proliferation of chondrocytes (cartilage cells), resulting in bone growth. Growth hormone does seem to have a direct effect on bone growth in stimulating differentiation of chondrocytes that undergo differentiation resulting in bone growth. IGF-I also appears to be the key player in muscle growth. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues. The rate of growth hormone secretion from the anterior pituitary is highest around puberty, and declines progressively thereafter.

Comparing the musculoskeletal system of Mr. Trivedi with a young healthy subject around puberty, Mr. Trivedi should have growth hormone secretion within normal range, but according to the lab reports (SRL RANBAXY Clinical Reference Laboratories, Mumbai – INDIA) growth hormone level was much lower than the value that can be measured by the technology. So how does Mr. Trivedi have absolutely healthy musculoskeletal system as mentioned above?

Spine:

Mr. Trivedi's spine MRI Image

Mr. Trivedi's spinal column was examined by Dr Patil, an Orthopedic Surgeon from Maharashtra, INDIA and three independent Radiologists in November, 2004 and in July 2008. There are four factors present in Mr. Trivedi's spinal column that was never ever observed and documented in the Medical history. Full spine X-rays were taken with Mr. Trivedi in the standing position and were read by the experts. The most significant of these factors is the age of the spinal column. Each doctor concluded, independently, that the X-rays had full intervertebral disc spaces, clear and smooth spinal joint surfaces, and perfect spinal curves in the cervical, dorsal, lumbar and lumbosacral areas. There were no soft tissue shadows indicating that there was no swelling, toughness or fibrosity in the surrounding muscles and soft tissues.



Mr. Trivedi's spine MRI Image

The density of the bones in Mr. Trivedi's spinal column was at the highest possible level. The conclusion of each independent expert was that the X-rays were consistent with those of a male 18 years of age, who had completed growth plate fusion, but no older than 25 years of age. After 25 years of age, deterioration is observed in the joints, disc spaces, bone density and surrounding soft tissue shadows due to the process of imbibitions, the loss of water in joint cartilage and intervertebral discs,

The curvatures of Mr. Trivedi's spinal column are in perfect alignment, his spinal curves all appeared to be moving toward the center of his body, they show the perfect balance of lordosis (inward curve of the neck and low back) and kyphosis (outward curve of the dorsal spine and the sacrum).

Mr. Trivedi's spine MRI Image

Mr. Trivedi's paraspinal muscles, which are more developed, broader and deeper (2-3 cm in depth) than any top athlete in the world, are moving his spinal bones into the center of his body. Even though Mr. Trivedi's muscles are so developed, he has more movement and flexibility than a child..

Mr. Trivedi's spine MRI Image

The third point regarding Mr. Trivedi's spinal column is that his cervical spine (neck) is unique in the areas where it meets his dorsal spine and where it meets his skull. These areas show more movement, fluidity and flexibility than any neck ever examined.

Mr. Trivedi's breathing is abdominal, with little chest movement i.e. very little or no movement of the diaphragm; which is biomechanically impossible. If there is no rib movement, Mr. Trivedi's diaphragm is not working as it does in all other humans, which leaves us with the question of how he is getting enough oxygen?

If Growth Hormone LEVEL is low, – then the symptoms given below do not match with Mr. Trivedi.

Typical symptoms of growth hormone deficiency

- Increase in adipose (fatty) tissue (especially around the waist)
- Decrease in lean body mass (muscle)
- Decrease in strength and stamina, reduction in exercise capacity
- Decrease in bone density, increase in rate of fracture in middle age and beyond
- Changes in blood cholesterol concentrations (increase in LDL and decrease in HDL)
- Excessive tiredness
- Anxiety and depression

- Feelings of social isolation
- Reduction in ‘quality of life’
- Increased sensitivity to cold or heat

Growth hormone has important effects on protein, lipid and carbohydrate metabolism

Carbohydrate metabolism: Growth hormone is one of a battery of hormones that serves to maintain blood glucose within a normal range. Growth hormone is often said to have anti-insulin activity, because it suppresses the abilities of insulin to stimulate uptake of glucose in peripheral tissues and enhance glucose synthesis in the liver.

The Glucose tolerance test [blood and urine] was found positive in Guruji. Oral glucose tolerance test (OGTT) value was greater than 260 mg/dl when measured at a half an-hour interval for continuous 2 hrs.

The Glucose tolerance test [blood and urine] was found positive in Mr. Trivedi. Oral glucose tolerance test (OGTT) value was greater than 260 mg/dl when measured at a half an-hour interval for continuous 2 hrs.

- Frequent infections that are not easily healed
- Frequent urination
- Extreme hunger but loss of weight
- Unusual thirst
- Blurred vision
- Extreme weakness and tiredness
- Irritability and mood changes
- Nausea and vomiting
- High levels of sugar in the blood when tested
- High levels of sugar in the urine when tested
- Dry, itchy skin
- Tingling or loss of feeling in the hands or feet
- Irritability and mood changes

Diabetes is a serious disease, which, if not controlled, can be life threatening. It is often associated with long-term complications that can affect every system and part of the body. Diabetes can contribute to the following conditions.

- Kidney failure
- Amputation
- Nerve damage
- Eye disorders and blindness

- Heart disease
- Stroke

Of the nearly 16 million Americans with diabetes, 90-95 percent (15.3 million) has type- 2 diabetes.

Diabetes by itself is now regarded as the strongest risk factor for heart disease. A variety of mechanisms most likely come into play, however, in addition to blood glucose levels. The blood vessels in patients with diabetes are more susceptible to other well-established risk factors, such as high cholesterol, high LDL, blood pressure and aging.

A healthy heart is necessary to assure that your tissues receive needed oxygen and nutrients while removing waste products such as carbon dioxide. As we age, the heart can be damaged by a number of processes.The heart's electrical system can wear out, and lead one to require an artificial pacemaker. The contraction and relaxing of the heart's muscular walls can decline, leading to a condition known as congestive heart failure. Additionally, the blood vessels (tubes) that supply blood to the heart themselves can become partially or completely clogged by atheromas / plaques resulting into coronary artery disease.

Pressure from expanding tumors or inflammations in the hypothalamus or pituitary gland may result in severe visual defects or total blindness.

But Mr. Trivedi DO NOT suffers from any of these EYE DEFECTS

Fat cells (Adipocytes) have growth hormone receptors, and growth hormone stimulates them to break down triglyceride and suppresses their ability to take up and accumulate circulating lipids.

- In Mr. Trivedi-LDL level and is Very high: 203 mg/dL (normal range- 80 – 180 mg/dl) and Total cholesterol level is 264 mg/dL (normal range- 150 – 200 mg/dl)

High levels of LDL may be associated with:

- Increased risk of Atherosclerotic heart disease
- Familial Hyperlipoproteinemia

Atherosclerosis is a common disorder of the arteries.

Fat, cholesterol, and other substances accumulate in the walls of arteries and form "atheromas" or plaques. Eventually, this fatty tissue can erode the wall of the artery, diminish its elasticity (stretchiness) and interfere with blood flow. Plaques can also rupture, causing debris to migrate downstream within an artery. This is a common cause of heart attack and stroke. Clots can also form around the plaque deposits, further interfering with blood flow and posing added danger if they break off and travel to the heart, lungs, or brain. Many physicians now suspect that there is an immune system component to the problem (inflammation may help cause atherosclerosis).

On contrary, MR. TRIVEDI do not have any signs or symptoms of atherosclerosis. In fact, he has 0% atherosclerotic plaquing as found in Dr John Levin's cardiovascular report and his blood vessels have the maximum elasticity that the technology can measure because the standardizing parameters are limited ever observed.

Transmission speed of Mr. Trivedi's blood vessels was beyond the maximum limit designated by the technology, better than many athletes although Mr. Trivedi does not follow any exercise.

EXERCISE TREADMILL TEST

This test determines the exercise capacity of the heart and also identifies the rhythm disturbances during exercise and the general health of the heart.

With high levels of cholesterol and LDL, possible complications of Diabetes mellitus Mr. Trivedi should have had positive Exercise treadmill test. On the contrary, Mr. Trivedi tested NEGATIVE for inducible myocardial ischemia with normal resting ECG and Heart rate [Bruce protocol].

Abnormal results may indicate Arrhythmias during exercise, stress on the heart provoked by exercise, possible Coronary artery disease i.e. blockage in the arteries, or lack of aerobic fitness. IN MR. TRIVEDI, NEITHER ARRHYTHMIAS NOR CORONARY ARTERY DISEASE WERE OBSERVED.

Why the reports and lab findings do not correlate with Mr. Trivedi should be ruled out by the scientists?

In males, the testes produce the majority of the circulating testosterone. The pituitary hormone LH stimulates the testicular Leydig cells to produce testosterone.

In Mr. Trivedi, both LH and FSH levels are low being 4.01 and 1.11 – mIU / mL respectively.

Lower-than-normal levels of LH and FSH may indicate Hypopituitarism.

On contrary, no Symptoms of hypopituitarism were found in Mr. Trivedi as mentioned below.

- Fatigue
- Weakness
- Sensitivity To Cold
- Decreased Appetite
- Weight Loss
- Abdominal Pain
- Low Blood Pressure
- Headache
- Visual Disturbances
- Short Stature (Less Than 5 Feet) If Onset Is During A Growth Period
- Loss Of Armpit Or Pubic Hair
- In Men: Decreased Sexual Interest , Loss Of Body Or Facial Hair

The main function of ACTH is the regulation of the steroid hormone Cortisol, which is secreted by the adrenal cortex. In Mr. Trivedi, both Cortisol and ACTH levels are within normal range being 17.99 ug / dL and 39.9 pg / mL respectively. Cortisol is a steroid hormone that is released in the body in response to physical or psychological stress. The secretion of cortisol induces energy-directing processes for the purpose of providing the brain with sufficient energy sources that prepare an individual to deal with stressors. In addition to its role as a so-called “stress hormone”, cortisol plays many key roles in almost every physiologic system. Regulation of blood pressure, cardiovascular function, carbohydrate metabolism, and immune function are among the best known functions of cortisol it also acts as anti -inflammatory agent.

Mr. Trivedi’s body show significant inflammation throughout the body as observed in Medical Infrared Thermal Digital Imaging (MIDI) report. If cortisol level is normal in Mr.Trivedi, then why the carbohydrate metabolism is not functioning properly as Mr. Trivedi has been tested positive for oral Glucose tolerance test?

In Mr. Trivedi, Gamma-glutamyl transpeptidase (GGTP) , Serum glutamic-oxaloacetic transaminase; SGOT and Serum glutamate pyruvate transaminase – SGPT levels are HIGHER than normal range that indicates diseases of the liver, bile ducts, and kidney

If liver has been affected in Mr. Trivedi, then how the secretion of IGF -1 is taking place that stimulates the proliferation of chondrocytes resulting in bone growth?

If kidney has been affected, then how the level of ADH (1.75pg/ ml) is within normal range which plays important role in regulation of water balance?

Thyroxine controls many body functions, including heart rate, temperature and metabolism. It also plays a role in the metabolism of calcium in the body.

The thyroid and parathyroid glands and skin produce hormones which help control the calcium and phosphate levels in the blood and bone.

In Mr. Trivedi, the level of Thyroid and Parathyroid hormones are within normal range. Thyroid (TSH) – 4.40 mIU/L (normal range – 0.465- 4.68 mIU/L) Parathyroid (Pth) – 45.1 pg/ml (normal range – 14.0 – 72.0 pg/ml) Alkaline phosphate – 79 U/L. (normal range- 39- 117 U/L)

If Thyroxine controls temperature, then why in Mr. Trivedi, asymmetry in temperature has been observed as found in Medical Infrared Thermal Digital Imaging (MIDI) report?

The scientists should evaluate the Calcium Metabolism in Mr. Trivedi’s body, when growth hormone level is less than normal which has direct effect on bone growth by stimulating differentiation of Chondrocytes at the same time, thyroid and parathyroid and ALP levels are within normal range. The levels of growth hormone thyroid and parathyroid and ALP do not coincide physiologically because all four are involved in calcium metabolism. So how is the Calcium metabolism taking place in Guruji? What is the mechanism that stimulates the chondrocytes leading to high density bones at this age?

The autonomic nervous system is made up of two divisions: sympathetic and parasympathetic. Autonomic nerve fibers originate from the brain and spinal cord and deliver impulses to your heart’s pacemaker and other parts of the heart. They exert a substantial modulatory influence over how fast and how hard the heart pumps. These two divisions have opposite actions on your heart. The sympathetic division signals both your

heart's pacemaker to increase its firing rate and your heart's muscle cells to increase the strength of their contraction; and the parasympathetic division sends signals to slow down your heart rate. The sympathetic fibers, which increase the heart rate, are activated in times of stress or emergency situations, sometimes called "fight", or take "flight", situations. The parasympathetic fibers slow the heart rate and allow us to "rest" and "digest".

The autonomic system relays visceral sensory information into the central nervous system and processes it in such a way as to make alterations in the activity of specific autonomic motor outflows, such as those that control the heart, blood vessels, and other visceral organs. It also causes the release of certain hormones involved in energy metabolism (e.g., insulin, glucagon, and epinephrine) or cardiovascular functions (e.g., renin, vasopressin). These integrated responses maintain the normal internal environment of the body in an equilibrium state called homeostasis.

The autonomic system consists of two major divisions: the sympathetic nervous system and the parasympathetic nervous system.

According to modern medical science, it is impossible to be in the highest state of sympathetic and parasympathetic activity at the same time because they produce opposite effects in the body in terms of blood flow, hormone release, muscle, immune and brain activity. Mr. Trivedi's central nervous system was measured using the neurological biofeedback technology by Dr. Brian Costello, AUSTRALIA.

- Mr. Trivedi was monitored simultaneously with computerized biofeedback measuring Electromyography (EMG), Heart rate change (PUL) Peripheral body temperature (TEM) and Epidermal Skin Response (GSR).
- It was found that Mr. Trivedi's central nervous system was simultaneously in the highest state of excitement (sympathetic part of the central nervous system) and the highest state of calm (parasympathetic part of the nervous system).

Mr. Trivedi's body should not be alive according to the laws of medicine and science. The variation from all other human standards is not small. It is a very, very large variation, beyond belief. All of MR. TRIVEDI'S physiological systems and his structure are very far beyond that of all other humans, and more importantly, the IMPACT of MR. TRIVEDI'S "Thought Transmission", on to those who can perceive it miracles occur!

A study of Mr. Trivedi's own body and the impact of his Thought Transmission on others is the area of research for scientists to explore, discover and develop the most effective medicines and treatments. This, Mr. Trivedi hopes may lead into a new era of Medical Science.

Dr Shrikant Patil