

UNIVERSITY OF ATHENS

MEDICAL SCHOOL

**17th International Postgraduate Course
In Endocrine Surgery**

**“Dexamethasone Suppression Test
for Cushing’s Syndrome”
 (“Dr. Pavlatos Test”)**

FOTIOS PAVLATOS, MD

OPENING CEREMONY

31 MAY 2018

ATHENS

Dear Colleagues,
Ladies and Gentlemen,

First of all, allow me to say that it is a great honor for me to be the invited speaker in the Opening Ceremony of your high-level **International Postgraduate Course in Endocrine Surgery**. The title of my speech is:

“Dexamethasone Suppression Test for Cushing’s Syndrome”

Dear Colleagues, as you know well, the **“overnight 1mg suppression test”** is a valuable screening test for patients with suspected hypercortisolism, which remains up to now as a standard diagnostic procedure for Cushing’s Syndrome.

This test was made at the **University of California San Francisco Medical Center**, in the **“Metabolic Research Unit”**, as it was at that time the title of the **Research Department of Endocrinology, Diabetes and Metabolic Diseases** in general.



I left my heart in San Francisco

As you can see at the bottom of this beautiful photo of the Golden Gate of San Francisco, there are the words from the Frank Sinatra's song

“I left my heart in San Francisco”.

As a matter of fact, I used the same words when I left from San Francisco, saying also to my good teachers and my good friends:

“I'm leaving home to go home”

This moment my thoughts go back to them and I must tell you that I kept in touch with every one of them for almost more than a half a century. Most of my friends became – allow me the expression – **“Towering Figures”** in the field of Endocrinology, especially my teacher **Peter H. Forsham**, my good friend **Francis (Frank) Greenspan**, the world known editor of **“Greenspan's Endocrinology”**, **Ed Biglieri**, known as **“The Aldosterone Man”**, **John Karam**, famous in the field of Diabetes – as a matter of fact I must tell you that I am the godfather of his daughter **Nikoleta-Fotina** – and also the Professor of the University of California **Jack Lange**, who was a world-wide known editor of so many, as you know, editions of Medical Science Textbooks.

All these are not anymore with us, they are now eternal travelers in heavens and of course they stay forever and ever in my mind and my heart and, as the poet of last century **Dylan Thomas**, referring to the spirit, wrote:

“And death shall have no dominion”

At that time, director of the department was **Professor Peter H. Forsham**, a world-wide scientific legacy in the field of Endocrinology, especially of the adrenal diseases and as for myself, I was one of the Assistants Research Physicians of the Unit.



Peter H. Forsham, MD (1915-1995)
Director of Metabolic Research Unit
University of California, San Francisco (UCSF)

Dear colleagues, I consider myself very fortunate and privileged that I have been working under the spiritual and scientific knowledgeable guidance of Professor Peter H. Forsham, during my postgraduate studies in Endocrinology in the University of California San Francisco from 1961 to 1965.

The Dexamethasone Suppression Test was published in JAMA with the title:

A Rapid Screening Test for Cushing's Syndrome

Fotios Ch. Pavlatos, MD; Renata P. Smilo, MD; Peter H. Forsham, MD
JAMA. 1965;193(9):720-723.

under my name along with the names of my colleague and good friend Renata Smilo and of course with the name of my teacher Peter H. Forsham.

THE RESEARCHERS

Simple New Test for Cushing's Syndrome Allows Overnight Detection

"A practical office procedure"
(from: *INTERNIST OBSERVER*
Vol. 3, No 3, 1965)



Dr. Pavlatos



Dr. Smilo

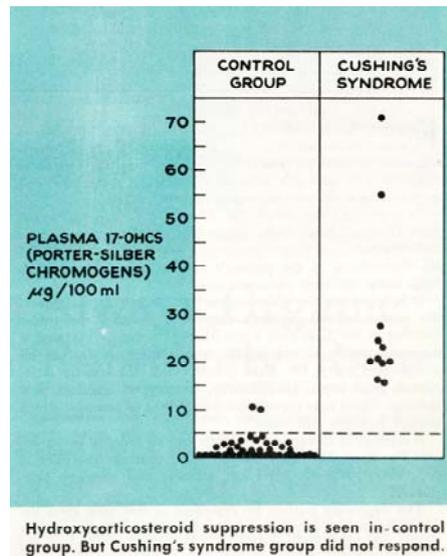


Dr. P. H. Forsham

Metabolic Res. Unit, UC, San Francisco

As it is well known to you, this test employs the administration of 1mg of dexamethasone at bedtime (11:00pm), with determination of a plasma cortisol early the following morning. The bedtime hour (11:00 pm) was selected because of its inhibition by dexamethasone, the corticotropin (ACTH) release at this critical time of the night, according, as you know, to the diurnal variation of the cortisol secretion.

THE TEST



This figure is the one that I used to present for the first time the Overnight 1-mg Dexamethasone Suppression Test.

According to this test, normal subjects should suppress plasma cortisol to a level of less than 5 μg/dl.

Overnight 1-mg Dexamethasone Suppression Test

False-negative results

- In some patients with mild hypercortisolism
- Patients with intermittent hypercortisolism

However, because, after some years of using the test, we had **false-negative results** in some patients with **mild hypercortisolism** and in those subjects with **intermittent hypercortisolism**, now we

have accepted that “**normal subjects should suppress plasma cortisol levels to less than 1.8 µg/dl**”.

Anyway, this test should be employed as “**screening test**” for the diagnosis of Cushing’s Syndrome and of course the biochemical confirmation must rely on **plasma and urine cortisol excretion**.

Overnight 1-mg Dexamethasone Suppression Test

False-positive results

- **In patients with renal failure, depression, alcoholism**
- **In patients with stressful event or serious illness**
- **Drugs like Phenobarbital (accelerate dexamethasone metabolism)**
- **Drugs that increase CBG (Estrogens)**

I’m sure that you also know that **false-positive results** may occur in some patients with **renal failure, depression, alcoholism** and in patients undergoing a stressful event or serious illness. Also, false-positive results with the overnight 1mg Dexamethasone Suppression test may be caused by drugs that accelerate dexamethasone metabolism (like Phenobarbital) or by drugs that increase CBG - Corticosteroid Binding Globulin (estrogens), which increase the total cortisol levels.



CARMEL, CALIFORNIA

Dear colleagues, ladies and gentlemen,

The first presentation of the Dexamethasone Suppression Test, was made at Carmel, a beautiful place about 100 miles from San Francisco. This place is well known for its beautiful and attractive pacific view, especially the so-called “**17 mile-drive**” with its romantic carpet of pink flowers.

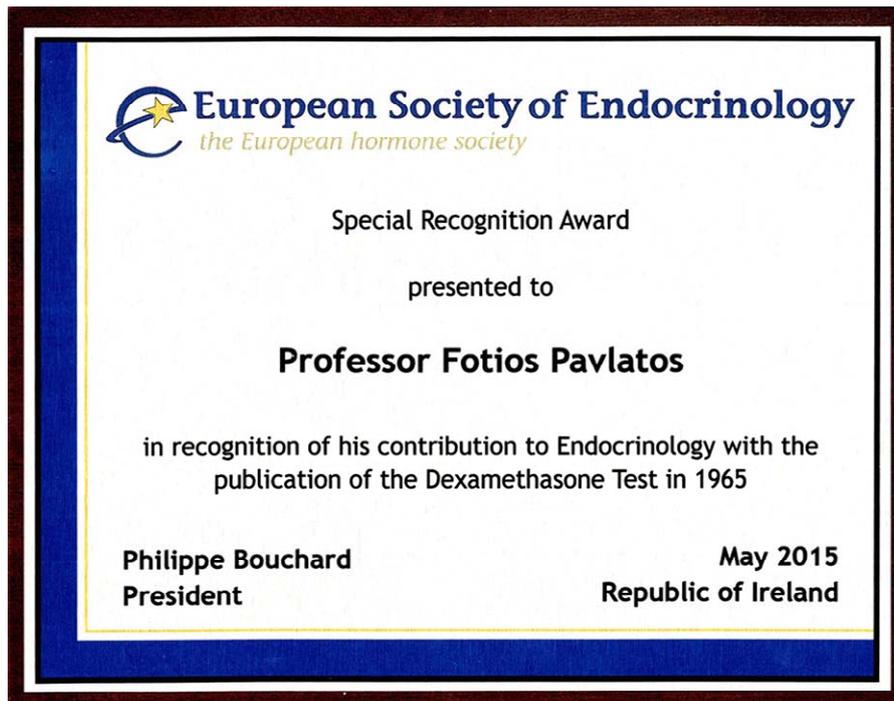


17 MILE DRIVE

This moment, my thoughts go back almost half a century ago to my postgraduate studies in Endocrinology at the Metabolic Research Unit of the University of California San Francisco, as I said in the beginning of my speech. My staying and training there was one of the best educational experiences I ever had in Medicine and always remains very vivid to me. Those days were really for me “Great Days” in my scientific life. And, as the professor Jerry Grodsky (who always remains one of my best friends from that time and despite of his age, he is now 92 years old, but still very active) wrote to me some years ago, about our staying there:

The memories of the metabolic unit of the UCSF always stay vivid in our mind and in our heart. They were great days of excitement and warm friendships and most of our research has gained importance over the years.

Dear colleagues, Ladies and Gentlemen, 3 years ago in May 2015 the Executive Committee of the **European Society of Endocrinology** nominated me with the “**Special Recognition Award**” for my “**contribution to Endocrinology**”, especially for **the publication of the Dexamethasone Test in 1965.**



Dear colleagues, I'm proud to be the recipient of this nomination for distinguished achievement in the field of Endocrinology, which of course, I accepted with gratitude and a sense of humility. And of course, I share this great honor with my colleague **Renata Smilo** and above all with my teacher **Peter H. Forsham**, who always remains a **"towering figure"** in the field of Endocrinology world-wide.

And now, ladies and gentlemen, closing this short speech, allow me to recite to you a poem of mine with the title: **"The Torch"**. I'm doing this, because this poem refers to the great meaning of knowledge world-wide and it was **dedicated to Peter H. Forsham**. For this poem it has been written in the website of the University of California SF the following – as already been said by Professor Linos:

"In this poem a procession travels across the earth, holding a torch treasured by its bearers and carrying the "Knowledge, Humanity and

Universal Friendship”. Since then, this concept remains symbolic of Forsham’s philosophy”

And now the poem:

The torch

*Now, that the time came
shall I light my Torch
in life's journey bright flame
will ever guide my thoughts.*

*That is the spirit, knowledge, faces
the humbleness, the roots and dreams,
the friendship, the universal places,
the avenues, fountains and streams.*

*Symbol, belief and hope there
a torch - procession across the earth
a hopeful message in the air
like spring's welcome birth.*

*Wherever, fellow, you go
in your struggle or noble endeavor
treasure this flame as you owe
that is the Torch to keep forever
and ever...*

Fotios Pavlatos, MD

Thank you very very much!