

Parkinson's Disease

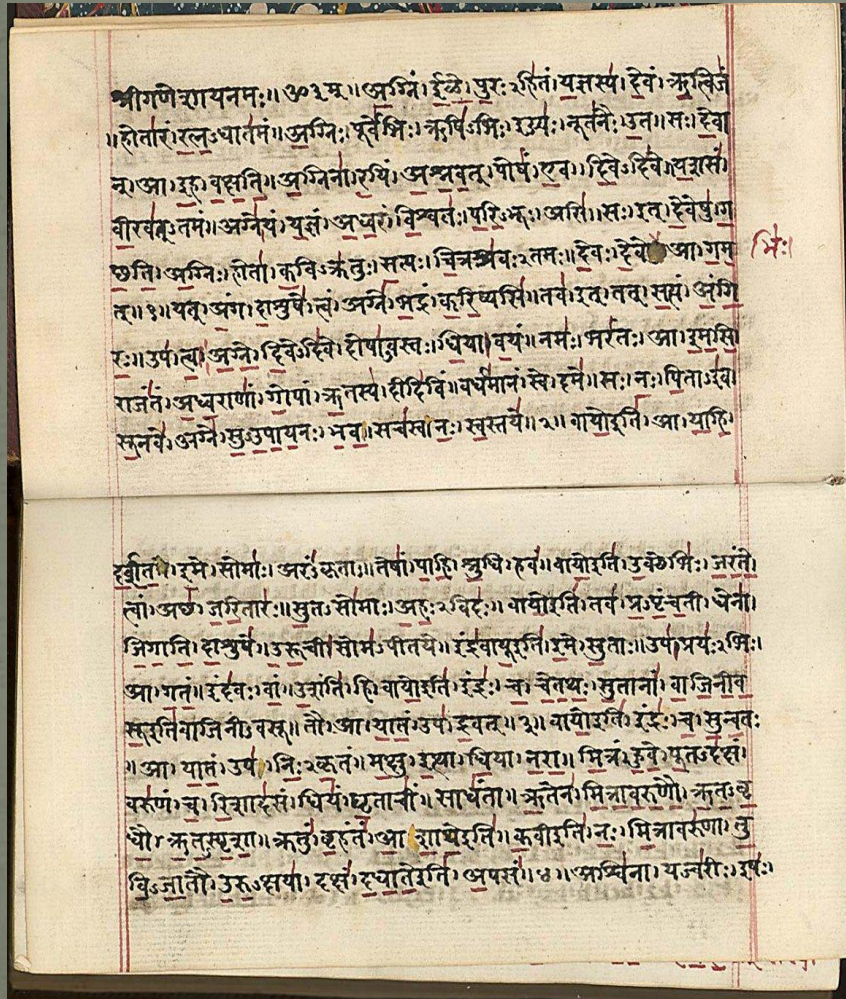
Dr. Hemang Shah

Objectives

- I am here to learn
- Patient knows disease the best
- Dr. William Osler: (John Hopkins)
 - Seeing patients without reading book
 - Reading books without seeing patients
- Confession:
 - I am not a movement disorder specialist
 - I am not here to drum up the business



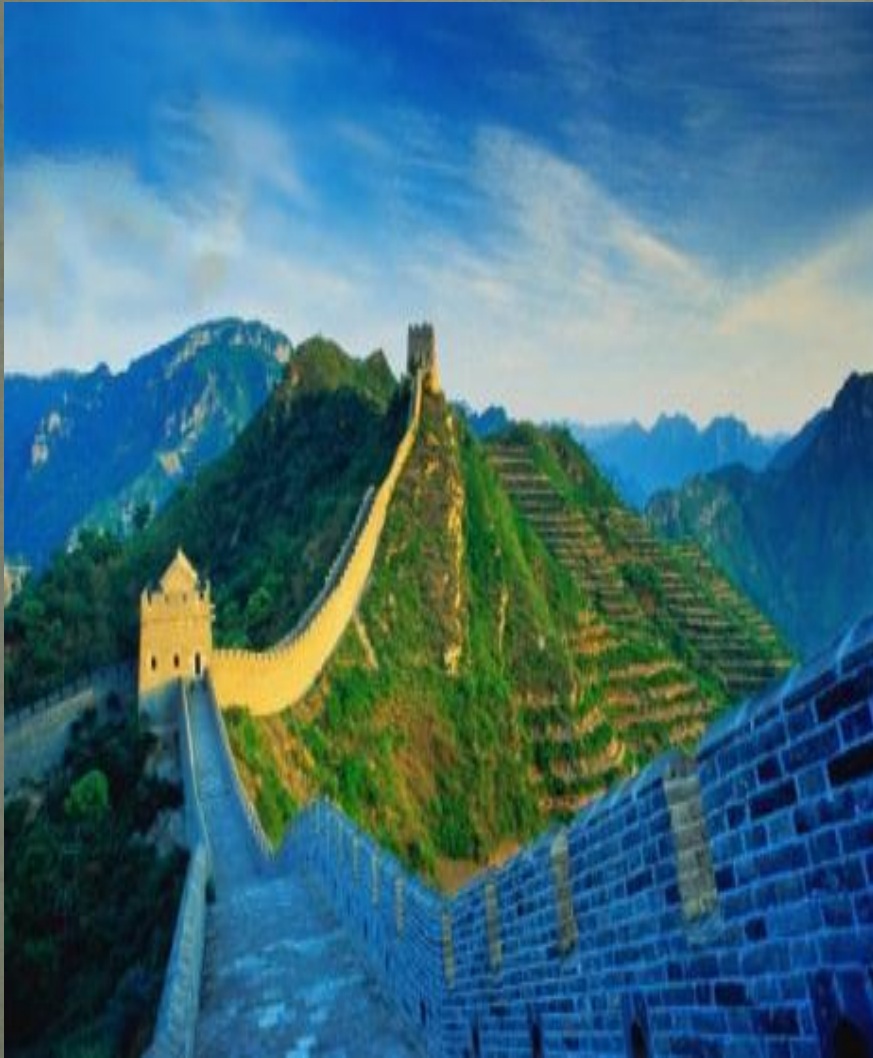
Brief History:



Ayurveda

- as far back as 5000 B.C.
- Kampavata = PD
- Atmagupta = tropical legume called Mucuna Pruriens
- A natural source of therapeutic quantities of L-dopa

History Conti ...



Huang di nei jing su wen

- 500 B.C – Chinese medical text
- describes the symptoms of Parkinson's Disease.

Mordan History



Name?

- An Essay on the Shaking Palsy – 1987
- Described 6 patients
- Not actually examined all of them – saw them on daily walks

AN
ESSAY
ON THE
SHAKING PALSY.

BY
JAMES PARKINSON,
MEMBER OF THE ROYAL COLLEGE OF SURGEONS.

LONDON:
PRINTED BY WHITTINGHAM AND ROWLAND,
Covent Street,
FOR SHERWOOD, NEELY, AND JONES,
PATERNOSTER ROW.

Controversies

- William Shakespeare (1564-1616), mentioned “shaking palsy” in the second part of Henry VI.
- Hungarian doctor Pápai Páriz (1649-1716) book on shaking palsy in Hungarian.

Early treatments:



- The English physician John Elliotson,
- 1827 to 1831 in the Lancet
- bleeding, induction and maintenance of pus building, cauterization, purging, low diet and mercurialization, silver nitrate, arsenic, zinc sulphate, copper compounds, and the administration of iron as a tonic with some porter, which is a kind of dark beer
- “disease instantly and permanently gave way”

Early treatments:



- French doctor **Guillame Benjamin-Amand Duchenne**
- 1855 publication "On localized electrification, and on its application to pathology and therapy"
- "galvanism"

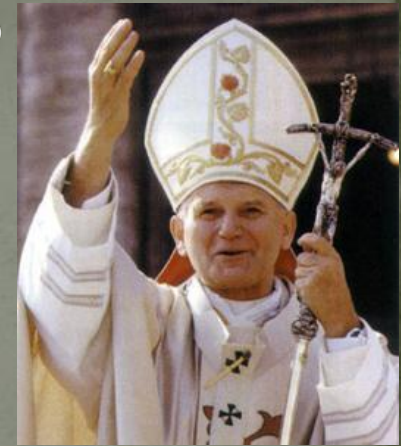
Q: Tell me who does PD look like?

- One word – different
- Motor symptoms
 - Tremor – unilateral, rest, location, sleep
 - Rigidity – cogwheel, stiffness, pain, frozen shoulder (?)
 - Bradykinesia, hypokinesia, pauses, akinesia
 - Postural instability, festination, camptocormia, en block turning
- Less recognized motor symptoms
 - hypomimia, hypophonia, dysphagia, sialorrhea, decreased blinking, saccadic pursuit
 - Arm swing, micrographia, dystonia, dyskinesia

Q: Enough?

- Visual hallucinations, diplopia, impaired visual contrast sensitivity, color discrimination etc.
- Depression, anxiety, memory problems (dementia)
- Neurocognitive dysfunction: executive dysfunction, impulse control, interpreting social cues, subjective awareness of time, increased reaction time
- REM Behavior Disorder, insomnia, daytime hypersomnolence
- Autonomic Features: sweating, dizziness, orthostatic hypotension
- Pain

Am I alone to have PD?



What causes PD?

- We don't know
- Did I do something wrong? – NO
- Minority of patients: genetic (PARK, toxic (Manganese), head trauma, anti-psychotic medications
- Balance between Acetylcholine and Dopamine
- Biology:
- http://www.michaeljfox.org/living_popupActionInTheBrain.cfm

Parkinsonism

- Essential Tremors
- Hydrocephalus and Normal Pressure Hydrocephalus
- Vascular Parkinsonism
- Encephalitis Lethargica
<http://www.youtube.com/watch?v=YosbgJbPgM4>
- Fragile X Tremor Ataxia Syndrome (FXTAS)
- Progressive Supranuclear Palsy (PSP)
- Multiple System Atrophy (MSA)
- Corticobasal degeneration
- Wilson's Disease

Treatment

- Amantadine - antiviral
- Anticholinergics
- Levodopa (combined with carbidopa) - sinemet
- MAO-B inhibitors: Selegiline, Rasagiline (Azilect)
- COMT inhibitors – Entacapone (combination – Stalevo), Tolcapone story

- **GENERIC DRUGS**

Dopamine Agonist

* Ergot-compounds

- - Bromocriptine
- - Cabergoline
- - Dihydroergocryptine
- - Lisuride
- - Pergolide

● * Non-ergot compounds

- - Apomorphine
- - Piripetil
- - Pramipexole
- - Ropinirole

Symptomatic Management

- Autonomic dysfunction
 - Hypotension
 - Urinary dysfunction
 - Gastrointestinal dysfunction
- Neuropsychiatric dysfunction
 - Treatment of depression
 - Treatment of dementia and psychosis
- Sleep problems
- Sialorrhea
- Pain

Surgical treatment

- Stereotactic Pallidotomy and Thalamotomy
- Deep Brain Stimulation
- Neural Transplantation

Deep Brain Stimulation

- <http://www.medtronicdbs.com/parkinsons/index.htm>

Tango for PD

- http://www.youtube.com/watch?v=EajsKP-ARIE&feature=player_embedded

Tai Chi for PD

<http://www.youtube.com/watch?v=-ucwgrxTBEg>

Yoga for PD

- <http://www.youtube.com/watch?v=mnRrbP3wYow>

Gaming for PD

- <http://www.youtube.com/watch?v=nizybXE24JE>
- <http://www.xbox.com/en-US/Kinect/Fitness>

Parkinson Voice Project

- <http://www.parkinsonvoiceproject.org/pvp-newfilm.html>

Bicycling with PD

- <http://www.youtube.com/watch?v=aaY3gz5tJSk&feature=channel&list=UL>

Caregiver story

- <http://www.medtronicdbs.com/parkinsons/caregiver-stories/family-experiences/index.htm>

Victory

- <http://davisphinneyfoundation.org/news/cbs4-news-kcnc-video-davis-talks-living-parkinsons-victory-counts/>

Good websites for PD patients

- www.apdaparkinson.org
- www.parkinson.org
- www.pdf.org
- www.michaeljfox.org