

"FROM THE HEART TO HEART FAILURE"

"CONCEPTS, MISCONCEPTS AND KIWI CONNECTIONS"

REMINISCENCES OF AN OCTOGENARIAN CARDIOLOGIST

MY SINCERE APOLOGIES TO MANY UNACKNOWLEDGED- TIME!!

HAMID IKRAM

1

"The past is never dead. It's not even past."

William Faulkner

TheFamousPeople.com

2

So Why Study History?


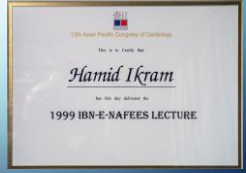
"History can be interpreted in several ways.

Its real value lies in the questions raised in your mind and the thinking you have to do in order to answer them"

3

WHAT WAS I DOING WHEN THE 20TH CENTURY ENDED?

-GIVING 2 SIMILAR LECTURES FROM DIFFERENT PERSPECTIVES

West	East
	
Wellington	Lahore

4

THE HEART HAS BEEN AN OBJECT OF AWE, VENERATION AND STUDY FROM EARLIEST TIMES

In the Bible, it is the most frequently mentioned internal organ, being referred to over 850 times - (often in a pejorative sense)

Human Sacrifice in Mesoamerica



Olmec Heart effigy 1300 BC



Neolithic cave drawing in Spain
Oldest depiction of Heart
-about 30,000 yrs ago

5

The Weighing of the Heart against the Feather of Truth



6

The Pulse

Importantly, Egyptians recognized that the peripheral pulse resulted from the heart and that assessing the beat of the heart and vessels provided insight into the patient's condition.

Some scholars go so far as to assert the ancient Egyptians actually measured the pulse, but the lack of any time-keeping device probably precluded this practice. Nonetheless, it was a remarkably advanced understanding that predated similar Greek knowledge by over a **1000 years**

Vascular Medicine and Surgery in Ancient Egypt-
Barr J. (J Vasc Surg 2014;60:260-3.)

7

Imhotep- The True 'Father of Medicine'





"The first figure of a Physician to stand out clearly from the Mists of Antiquity" – Sir William Osler

A commoner by birth that laid the foundations for the medical profession over 4500 years ago and over 2000 years before the birth of Hippocrates. His legacy affected the great civilisations that followed and without him, medicine may not be where it is today.

8

Eber's Papyrus- 3500 BC



9

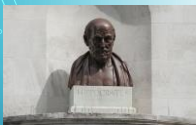


The Greeks have enjoyed an absurdly Favourable Press



"They Invented Everything"

10

Greek Contributions to Medicine

Bust of Hippocrates Herophilus (335-280 BC) Erasistratus (discovering Veins of Arteries by Physical Examination)

Hippocrates of Kos (460-370 BC), Erasistratus (304-250 BC) Herophilus (335-280 BC)
Both of the Alexandrian School

First clinical codes **Swiss & Roman 1000s/1000s**
Rational scientific clinical observation
Separate Medicine from Religion- Diseases not Divine Punishment
Erasistratus discovered cardiac valves, said heart was a pump, not the organ of sensation. Differentiated veins from arteries and also sensory from motor nerves – Connected the nerves to the Brain
Herophilus – Carried out Vivisections – 'Father of Anatomy'

11

'Hippocrates was No Cardiologist'

" cor aegrotari non potest "

Heart is immune to disease

"The Greeks were great Poets, Philosophers, Logicians, Dramatists and Sculptors- but poor Scientists. They tended to explain Nature by using Deduction rather than Experimentation and Observation- This led to serious errors eg Aristotle and 'womens' teeth

'Kardias' in Greek can mean the Heart or the top of the Stomach.

'A Short History of Medicine'

12

The Harveian Oration of Sir William Osler- 1906

"Why Fabricius and other Great Physicians failed to discover the concept of the Circulations"

Now Fabricius who did such work and such remarkable powers of observation, could have been so blinded as to overlook the truth which was tumbling out, so to speak, at his feet, is to us incomprehensible. But his eyes were veiled, and to him, as to his greater predecessors in the chair, clear vision was denied. The dead hand of the great Pergamite lay heavy on all thought, and Descartes had not yet changed the beginning of philosophy from wonder to doubt.

19

The Missing Link

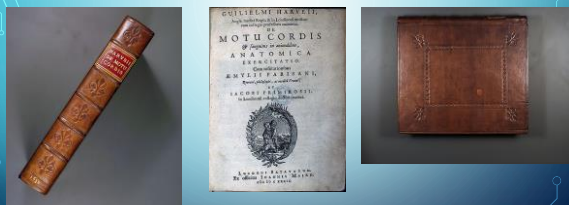


Andrea Alpago of Belluno (d. 1521)

These important observations were probably transmitted by in unpublished writing or orally to Padua while he was the Venetian Ambassador in Damascus for 30 years. He was a physician, fluent in Arabic, and made a Professor to the University of Padua in 1521 but died after holding the Chair for 2 months. He had been translating *Avicenna* and of *Nafis* since 1510

20

De Motu Cordis



Second Latin Edition- Christchurch Collection- First Edition - 72 page, Poorly Produced with many errors in Frankfurt, Germany, 1628

21

The Lure of Padua

Padua's contribution to English medicine was by no means inconsiderable. During that time its graduates were not only better trained than those studying elsewhere, including, of course, England, but other were as well the heirs of a medical tradition superior to that of any school.

Indeed, one may speculate on the nature of Harvey's achievement had he not studied there.

CD O'Malley

22

An Experiment of Nature

Although Harvey has never been shown to have carried out human vivisection, he did have an extraordinary opportunity to see the beating heart in a living human being. This opportunity resulted from an injury sustained by Hugh, the eldest son of Viscount Montgomery. The wound left him with a fistula through the chest wall from which it was possible to visualise the beating heart

23

"Some Contradictions in the Life of William Harvey"

- Harvey's magnificent achievement—considered to be one of the greatest in science as well as the introduction of experimental observation—was controversial, but it eventually became accepted in his lifetime, except in Paris where it was severely criticized by Jean Riolan, a respected anatomist. Harvey's practice suffered initially, and, according to a comment made by Harvey, some thought he was "crackbrained"
- He had a quick temper and wore a dagger which he was wont to draw out frequently
- His Practice declined after his momentous discovery was published
- According to Aubrey that, "though all of his profession would allow him to be an excellent anatomist, I never heard of many that admired his therapeutic way. I knew several practitioners in this town that would not have given three-pence for one of his little prescriptions, so a man can hardly tell by his bills what he did aim."
- Even 23 years after the publication of *De Motu Cordis*, Vincent Conroy, in advising his daughter-in-law not to use Harvey as her physician because, "he is a most excellent anatomist, and I conceive De Motu to be his masterpiece...but in the practice of Physick I conceive him to be too much, many times governed by his Phantasy....[and] to have a Physician abound in phantasie is a very perilous thing..."
- He cohabited with a young woman—who according to his friend, John Aubrey, "He used for warmth, in the manner of King Solomon"; Aubrey, J "Brief Lives"
- To his dying moments he remained under the influence of Galen. When he was dying of a stroke, he had himself bled in the tongue as he had difficulty in speaking.

24

“The skill of the physician lies in the knowledge of the movements and the knowledge of the Heart.” Ebers’ Papyrus 3,500 BC

“ The Very Essence of Cardiovascular Practice is the Early Detection of Heart Failure”
Sir Thomas Lewis- 1933

25

The Oldest Identified Case of Cardiac Failure in History

It is believed that the oldest identified case of decompensated HF is the remains discovered in a plundered tomb in the Valley of the Queens by the Italian Egyptologist Ernesto Schiaparelli. The remains date back over 3,000 years and are now housed in the Egyptian museum in Turin, Italy.


Heart Failure on Historical perspective
 Journal of Intensive Care Medicine 2014; 29(1): 1-10
 Department of Cardiology, Sahlgrenska University Hospital, S-413 45, Gothenburg, Sweden
 Department of Cardiology, Sahlgrenska University Hospital, GUM Care and Research, U.S. Health Science
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 10.1177/0885066614128184

Lacking any unified concept of the Heart and Circulation, writings before 17th century tended to group symptoms and signs to the organ they arose in. eg Dyspnoea = Asthma, Oedema= Dropsy

The term 'Heart Failure' is very recent

26

The First Convincing Clinical Case of Heart Failure- The Byzantine Emperor



Anna Comnena

Alexius I Comnenus
Byzantine Emperor 1081-1118

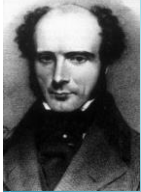
Irene

What on earth is this trouble that affects my breathing? I want to take a deep full breath and be rid of this anxiety that troubles me, but however often I try I can't lift even a small fraction of the load that oppresses me. For the rest of life I had a hope of some thing on my brain and coming about my breathing. I can't understand the reason for it nor why such pain afflicts me. The one secret to my trouble is to breathe at all. If by chance I do let me on my back or side, the suffocation was so bad, to breathe in or exhale even a tiny amount of air became impossible.

27

James Hope and the Concept of 'Backward Heart Failure'

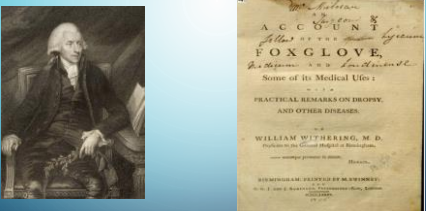
From *A Treatise on Diseases of the Heart and Great Vessels* 1821



"The respiration, always short, becomes hurried on the slightest exertion or mental emotion. The effort of ascending a staircase is particularly distressing. In capable of lying down, he is seen for weeks and even for months together, either reclining in the semi-erect posture supported by pillows, or around a heated distracted look of horror, of anguish, of supplication-- How agonizing the impotency of medicine-- muttering a fervent invocation for death to put a period to his sufferings."

28

'Serendipity- The Mother of Invention'



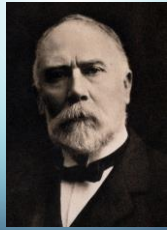
William Withering

First Effective Drug for Heart failure

29

Sir James Mackenzie

The 'Forward Heart Failure' Hypothesis



The Oliver Sharpey Lecture- 1911

30


Setting back British Mitral Surgery by 14 years

Sir James Mackenzie to Dr Samuel Levine of Boston, on the first successful mitral valvotomy by E Cutler

**“ My Dear Sam,
What a foolish thing to do. Everyone know that the Problem lies in the myocardium”**

31

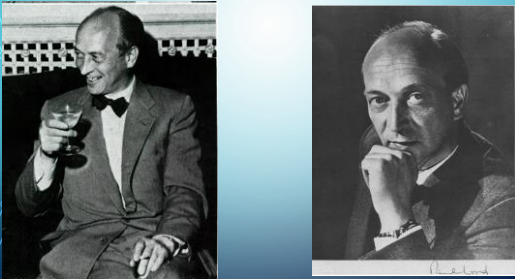
Pioneers of Mitral Surgery



Sir Henry Souttar (1875-1964) his first and only successful closed mitral commissurotomy was in 1925.

32

Dr Paul Wood- 2 faces



33

Paul Wood and Mrs Elizabeth Wood (nee Gouffe)

Spring in Marlborough (1931)



He was a recently-qualified Aussie House Surgeon at C/Ch Hospital and she was the Med Superintendent's Daughter

34

Paul Wood's Influence on New Zealand Cardiology.

Ian Prior, Jim Lowe, + David Hay, Peter Campbell, John Gibbs, Edward Roche



Figure 11. Paul Wood and his assistants in 1952. From left to right - Back row: Ian Prior, Douglas Stuckey, Louis Vogelwey, David Wittman, Hugh Gilman. Front row: James Lowe, Sheila Hinemaru, Paul Wood, Aubrey Leatham, David Shear.



35

Sims Travelling Professor - 1961

His appointment as Arthur Sims Travelling Professor in 1961 gave him much pleasure. Though it interrupted the rewriting of the third edition of his book and made him devote most of his nominal holiday in Norfolk to preparation, he and Betty saw more of each other on their long travels and specially enjoyed the chance of revisiting Christchurch where they had first met.


36

Sir Brian Barrett-Boyes

Started Heart Surgery in Green Lane Hospital-1957

37




Alan Kerr- A Great Cardiac Surgeon and Humanitarian

38

Fredrick Horatio Akbar Mohammed

Grandson of Deen Mohammed-
["The Prophet of the 21st Century"](#) to King George IV & King William IV




From what has been said, it is clear that the historical studies were done without the benefit of a previous research, but with the aid of a questionnaire, the historical developments in medical history. The historical characteristics of the ["The Prophet of the 21st Century"](#) in patients with high blood pressure were investigated. The ["The Prophet of the 21st Century"](#) changes have recently been verified and explained. He contributed to a number of other advances in medical care, including ["The Prophet of the 21st Century"](#) and ["The Prophet of the 21st Century"](#). The ["The Prophet of the 21st Century"](#) investigation record to the ["The Prophet of the 21st Century"](#) this cooperation coordinated from physicians practicing outside the hospital setting and was the precursor of modern ["The Prophet of the 21st Century"](#).

Prof. W. O'Rourke - Sydney

39

Pioneers of Hypertension Research and Treatment



First to describe E on T phenomenon as a precursor to MI in 1949

Professor Sir Horace Smirk 1913-2013


Other Anzacs

- Olaf Simpson
- Ponry Hallwright
- Kevin O'Brien
- Gary Nicholls
- Mark Richards
- Austin Doyle
- Colin Johnson
- Gary Jennings
- Murray Esler

Sir Horace Smirk
Pioneer in Drug Treatment of Hypertension

Austin E. Doyle

Sir Horace Smirk deserves much of the credit for establishing the benefits of reducing blood pressure. He was one of the most early proponents of the idea that it was the renal salt excretion, which had a direct effect on the arterial and venous concentrations of hypertensive. His training in both pharmacology and internal medicine enabled him to devise practical methods for successful treatment of hypertension with specific blocking drugs such as reserpine. The major clinical benefits that followed each drug treatment proved a great stimulus to the development of drugs with fewer challenges and to widespread acceptance of the beneficial effects of antihypertensive drug treatment. (Hypertension 1994;12:47-50)



40

ACEI -the Beijing Conference





NS, CJ, HB, AM, VZ, Cmac,MGN


Mark Richards and I

41

Pioneers of Treatment of Coronary Haert Disease




"Father of Coronary Thrombolytic Therapy"




"Father of Coronary By-pass Surgery"

42


The Birth of Electrophysiology and Treatment




Warren Smith



Michael McQuinn



Ian Crozier




The Australian Resuscitation Council, The Resuscitation Society


43

HUMAN HEART TRANSPLANTATION


Bernard DeBoakey and Klotzowitz




Hans Snyman, South African Surgeon



Victor Chang, Australian Cardiac Transplant Pioneer




Man Lives 555 Days Without A Heart



The Order of Protophane is South Africa's highest honor. It was bestowed on 8 December 2002 and is granted by the President of South Africa, for achievement in the international arena which have served South Africa's interests.

Dorise Durheim, Pat Shiner



44

Green Lane Cardiac Transplant Team



Henry Long's Committee - 1985

45

Next ?

46