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Medical World Wake Up, Pay Attention and Listen: Ghanem's New Scientific Discoveries in Medicine, Physiology, Urology, Nephrology, Cardiovascular and Surgery

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Abstract

Introduction and Objective: To report the new scientific discoveries by the author that is largely ignored by medical professionals and journals.

Materials and Methods: Results of my research are summarized. It is based on 2 clinical studies one prospective and the second case series on HN of TURP. A physics study on porous orifice (G) tube proves Starling's law is wrong. I reported prospective study on nephroptosis revealing its link with LPHS and curative surgery for it.

Results: Acute HN presents as shock during surgery. It is induced by massive gain of sodium-free fluid recognized as VOS1. Features of MVOD/F occur, include ARDS, Acute renal failure (ARF) and Coma. The prospective study demonstrated volumetric overload is the most significant in patho-etiology. The case series demonstrated mistaking VOS1 for a known shock and treating it with further volume expansion cause death. Correct diagnoses as VOS1 and treating it with hypertonic sodium is life saving. The physics study on the G tube demonstrated that proximal, akin to arterial, pressure induces suction not filtration producing the hydrodynamic phenomenon that replaces Starling's law. The link of LPHS with nephroptosis is demonstrated by the IVU 7 sign. The curative surgery for LPHS is sympathetic denervation and nephropexy.

Conclusion: Dilution HN presents as shock that is mistaken for known shocks and treated with volume expansion causing death or ARDS. Manifestations include shock, ARDS, ARF and Coma. The correct treatment is hypertonic sodium. Starling s law has proved wrong. The correct replacement is the hydrodynamics of G tube. The puzzle of LPHS was also resolved.

Keywords: *Shock; Hyponatraemia; Fluid Therapy; The TURP Syndrome; ARDS; LPHS; Bladder Cancer*

Key Points

- **Question:** What are the discoveries contributed by the author that are being ignored by the Medical world?
- **Findings:** Two shocks and treatments are recognized. Starling's law proved wrong and the correct replacement is the hydrodynamics of the porous orifice (G) Tube. These have resolved the puzzles of TURP syndrome, HN and ARDS. The link of loin pain haematuria (LPHS) syndrome with nephroptosis was revealed.

- **Meaning:** Two new types of shocks are discovered. Starling's law is wrong and the correct replacement is the hydrodynamics of the G tube. These resolve the puzzles of syndromes discovering patho-etiology and successful treatments. A new curative surgery for LPHS was reported.

Introduction

Despite multiple and powerful reporting in the literature on my multiple and important scientific discoveries the whole medical world is not responding. It seems to be in a deep coma. Even the top Medical, surgical and scientific journals including *Nature, Nature Medicine, Science, Lancet, British Medical Journal, New England Journal of Medicine. Journal of The American Medical Association, The Surgeon. The Journal of the Royal College of Surgeons of Edinburgh, Physiology and Urology* journals have repeatedly done serious mistakes rejecting the many articles I sent to them. They may ignore my person but they cannot wrong any of my new discoveries. Here is a summary of my new discoveries to show you how wrong they all are.

My scientific discoveries are many and most important made over the last 32 years of my career life spent in investigating and reporting these articles [1-5]. The articles recognises 2 new types of shocks and its treatment, proves that Starling's law for the capillary interstitial fluid transfer is wrong and provides an alternative mechanism; the hydrodynamics of a porous orifice (G) Tube. These discoveries resolve the puzzles of 3 syndromes discovering its patho-etiology and new successful treatments; namely the transurethral resection of the prostate (TURP) syndrome and acute dilution hyponatraemia (HN), the acute respiratory distress syndrome (ARDS) and the loin pain haematuria syndrome (LPHS). Not only the exact patho-aetiologies of these syndromes were discovered but also successful treatment were found. The two new types of vascular shocks are volumetric overload shocks defined here.

Massive fluid infusions in a short time induce volumetric overload Shocks (VOS) of two types; Type one (VOS1) and Type two (VOS2). VOS1 is induced by sodium-free fluid of 3.5 - 5 litres in one hour known as the TURP syndrome [5] or hyponatraemic shock. VOS2 may complicate VOS1 or is induced by massive infusion of sodium-based fluids. VOS2 also complicates fluid therapy in critically ill and presents with ARDS [6]. Volumetric gain of 12 - 14 litres of sodium-based fluids reported in ARDS.

Two clinical studies to understand the TURP syndrome and recognise VOS were conducted. A prospective study on 100 consecutive TURP patients of whom ten suffered TURP syndromes. Volumetric overload was the only significant factor in causing the condition (Table 1 and Figure 1). The second study was case series of 23 case cases s of the TURP syndrome manifesting as VOS1. Volumetric overload quantity and type is shown in figure 2. Three patients died and remaining 20 patients were correctly diagnosed as VOS1 and treated with hypertonic sodium therapy (HST). Each patient passed 4 - 5 litres of urine followed by recovery from shock and coma. This treatment was successful in curing all patients bringing them back from dead.

Parameter	Value	Std. Err	Std. Value	T Value	P
Intercept			0.773		
Fluid Gain (l)	0.847	0.228	1.044	3.721	0.0001
Osmolality	0.033	00.014	-0.375	2.42	0.0212
Na+ (C_B)	0.095	0.049	0.616	1.95	0.0597
Alb (C_B)	0.062	0.087	0.239	0.713	0.4809
Hb (C_B)	-0.282	0.246	-0.368	1.149	0.2587
Glycine (C_B)	-4.973E-5	5.975E-5	-0.242	0.832	0.4112

Table 1: *Shows the multiple regression analysis of total per-operative fluid gain, drop in measured serum osmolality (OsmM), sodium, albumin, Hb and increase in serum glycine occurring immediately post-operatively in relation to signs of the TURP syndrome. Volumetric gain and hypoosmolality are the only significant factors.*

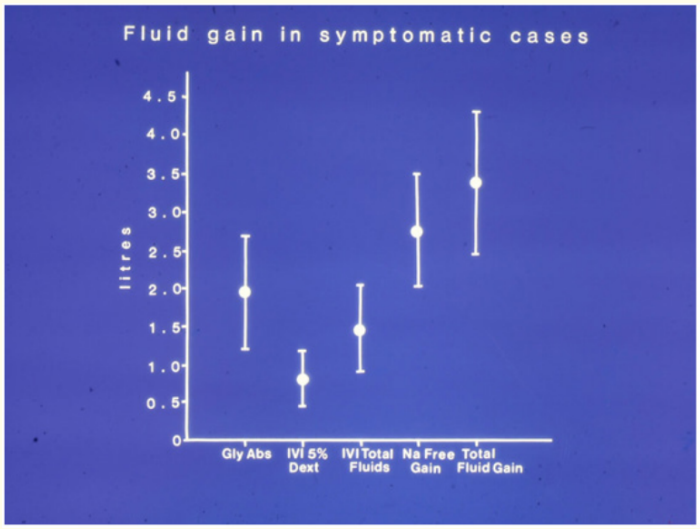

Figure 1: *Shows the means and standard deviations of volumetric overload in 10 symptomatic patients presenting with shock and hyponatraemia among 100 consecutive patients during a prospective study on transurethral resection of the prostate. The fluids were of Glycine absorbed (Gly abs), intravenously infused 5% Dextrose (IVI Dext) Total IVI fluids, Total Sodium-free fluid gained (Na Free Gain) and total fluid gain in litres.*

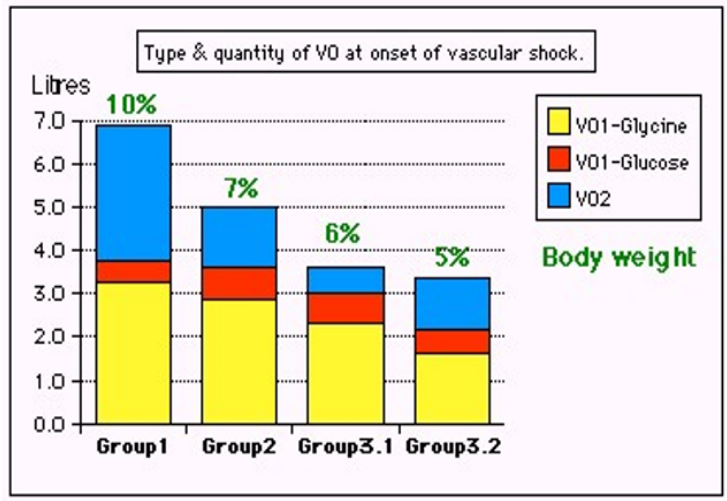

Figure 2: *Shows volumetric overload (VO) quantity (in litres and as percent of body weight) and types of fluids. Group 1 was the 3 patients who died in the case series as they were misdiagnosed as one of the previously known shocks and treated with further volume expansion. Group 2 were 10 patients from the series who were correctly diagnosed as volumetric overload shock and treated with hypertonic sodium therapy (HST). Group 3 were 10 patients who were seen in the prospective study and subdivided into 2 groups; Group 3.1 of 5 patients treated with HST and Group 3.2 of 5 patients who were treated with guarded volume expansion using isotonic saline.*

A study of the hydrodynamics of the porous orifice (G) tube comparing it to that of Poiseuille's tube was done. Measurements of pressures at various parts of a circulatory system incorporating the G tube in a chamber to mimic the capillary-interstitial fluid compartment were done. The effect of changing the proximal (arterial), the distal (venous) pressures and the diameter of the inlet on side pressure of the G tube and chamber pressure as well as the dynamic magnetic field like fluid circulation around the G tube was evaluated. The dynamic magnetic field like fluid circulation around the G tube and surrounding it in C chamber provides adequate replacement for Starling's law. The physiological equivalent of this physics study was done on the hind limbs of sheep. It demonstrated that arterial pressure causes suction not filtration due to effect of pre- capillary sphincter.

Starling's hypothesis was based on Poiseuille work on strait uniform brass tubes. Seven decades latter evidence demonstrated that the capillary is a porous narrow orifice (G) tube as it has a pre-capillary sphincter [8] and pores that allow the passage of plasma proteins [9]. As the capillary pores allow the passage of plasma molecules, nullifying the osmotic pressure of plasma proteins, a call for reconsideration of Starling's hypothesis was previously made [10] but there was no alternative then. The replacement came to light when the hydrodynamics of the G tube were discovered.

The hydrodynamics of the G tube [1,11] (Figure 3) demonstrated that the proximal (arterial) pressure induces a negative side pressure gradient on the wall of the G tube causing suction most prominent over the proximal half and turns into positive pressure over the distal half. Incorporating the G tube in a chamber (C), representing the interstitial space surrounding a capillary, demonstrated a rapid dynamic magnetic field-like fluid circulation between the C and G tube lumen. Incorporating the G tube and C in a circulatory model driven by electric pump induced proximal pressure similar to arterial pressure; causing suction from C into the lumen of G tube. This proves that the arterial pressure causes suction not filtration at the capillary interstitial fluid circulation, and hence Starling's law is wrong. The hydrodynamics of the G tube provide adequate replacement for Starling's law. This illustrates how 2 new types of vascular shocks and a replacement of Starling's law were discovered.

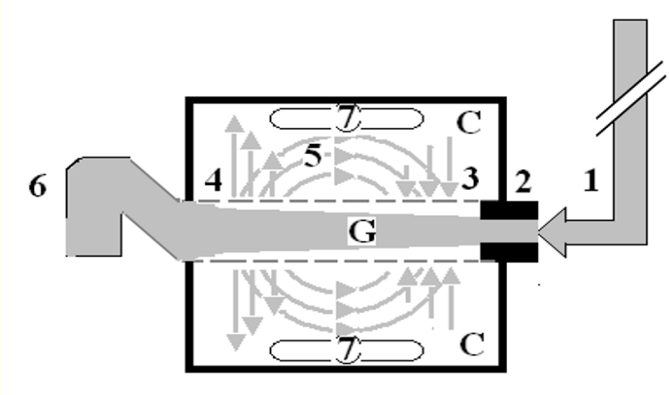

Figure 3: *Shows Diagram of the porous orifice (G) tube enclosed in chamber (C) based on several photographs demonstrating the magnetic field-like G-C circulation phenomenon. The proximal inflow (arterial) pressure (1) pushes fluid through the orifice (2) creating fluid jet in the lumen of the G tube. The fluid jet creates negative side pressure gradient causing suction maximal over the proximal half of the G tube near the inlet (3) that sucks fluid into lumen. The side pressure gradient turns positive pushing fluid out of lumen over the distal half maximally near the outlet (4). Thus the fluid around G tube inside C moves in magnetic field-like fluid circulation (5) taking an opposite direction to lumen flow of G. tube. The inflow (arterial) pressure (1) and orifice (2) induce the negative side pressure energy creating the dynamic G-C circulation phenomenon that is rapid, autonomous and efficient in moving fluid out from the G tube lumen at (4), irrigating C at (5), then sucking it back again at (3), maintaining net negative energy pressure (7) inside C. The distal outflow (venous) pressure (6) enhances outflow at (4) and its elevation may turn the negative energy pressure (7) inside C into positive, increasing volume and pressure inside C chamber.*

On another subject, this article [12] reports the overlooked link of Loin Pain Hematuria Syndrome with Symptomatic Nephroptosis and the Results of a new curative surgery; Renal Sympathetic Denervation and Nephropexy Surgery. Two new signs namely; the IVU 7 sign (Figure 4) and tube stretch hypothesis were reported demonstrating that renal pedicle stretch causing vessel stenosis, ischaemia and neuropathy. Surgical treatment was used in 28 patients; 10 had simple nephropexy and 18 had Renal Sympathetic Denervation and Nephropexy Surgery (RSD&N) for severe LPHS. Four of patients treated with simple nephropexy had recurrence of LPHS while those who had RSD&N were all cured.

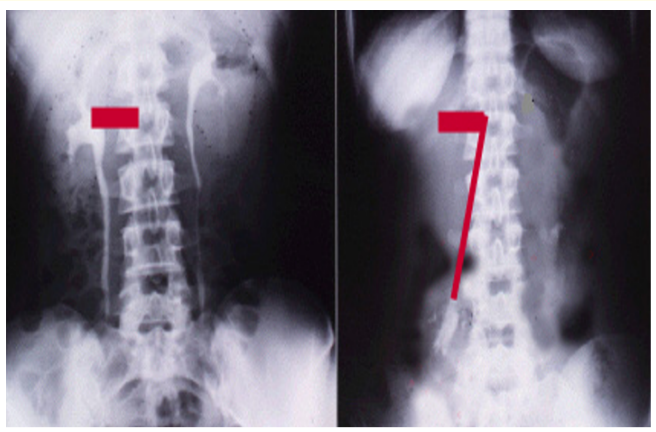

Figure 4: *Shows renal pedicle mapped on a supine IVU film (Horizontal) and erect film (Vertical) limbs of 7 where the renal pedicle is stretched to 3 times its normal length, causing stenosis and ischemia.*

On another subject I reported a surgical point of technique [13] for operable cancer bladder in which "capsule sparing" cystoprostadenectomy for orthotopic bladder replacement that overcomes the problems of difficult urethral anastomosis, impotence and incontinence.

Conclusion

Dilution HN of TURP syndrome presents as shock mistaken for known shocks and treated with volume expansion causing death or ARDS. Manifestations include shock, ARDS, ARF and Coma. The correct treatment is hypertonic sodium therapy. Starling's law has proved wrong. The correct replacement is the hydrodynamics of G tube. The puzzle of LPHS was also resolved. A new point of technique for bladder replacement was reported.

Conflict of Interest

The author declares none.

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None.

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