

Pathological Investigation, a Possible Enhancement of Totality of Symptoms: Prostate Specific Antigen (PSA) Assay in Enugu Metropolis, a Case Study

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Abstract— The quest to know the implication of diagnostic investigations in homeopathic medical treatment with a view to selecting a similimum to achieve totality of symptoms led to this work. Prostate disease patients numbering 72 within the age range of 40 to 65 years were used for prostate specific antigen assay (PSA). Mean, Standard deviation and Students T-test were used for statistical analysis. There was a significant increase in the PSA results of prostate disease subjects over the control subjects ($P < 0.05$). Levels of increase of PSA in prostate disease helps to enable differential diagnosis of different prostate diseases to facilitate repertorization of similimum for totality of symptoms. The result of this work presented PSA assay as a diagnostic tool to enhance repertorization process for accurate similimum for totality of symptoms in homeopathic treatment.

Index Terms— PSA, Repertorization and Totality of symptoms.

I. INTRODUCTION

Pathology is the scientific study of the origin, nature and course of diseases (Vanmeter and Hubert, 2014). A study of diseases cannot be achieved without the knowledge of the biology of the body. Obviously, It equally needs elucidation with scientific investigation procedures, hence the inclusion of anatomy, physiology and biochemistry in allopathic and homeopathic medical curriculum of studies (Singh, 2014; Vanmeter & Hubert, 2014). Pathological investigation procedures include the use of laboratory investigative parameters such as PSA, Liver Function Test (LFT), Electrolyte, Urea, Creatinine (E/u/cr), Full Blood Count, Radiological chest X-ray Pa, Magnetic Resonance Imaging (MRI), Computer Tomography (CT) Scan, Electromagnetic Electrocardiogram (ECG) and Electroencephogram (EEG) etc, to confirm homeopathic clinical symptoms and diagnosis especially as may involve tissues and organs. (Gorenberg *et al*, 2015)

Homeopathy is said to be a distinct and deep healing system developed by Professor Samuel Hahnemann (Little, 2014). Although it finds its way into other healing systems such as allopathy, acupuncture, chiropractics, naturapathy etc, homeopathic theories and practice are distinct (De Schepper, 2001; Little, 2014). Its ideals and theory of law of similar or

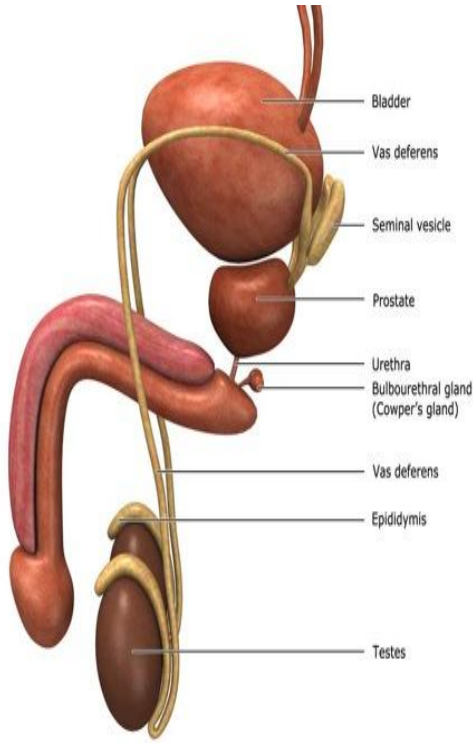
similia similibus currenter (like cures like) is contradictory to the allopathic law of opposite (De Schepper, 2001; Little, 2014). Homeopathic principle of totality of symptoms applied in the healing of patients does not agree with pathognomic theory of allopathic medicine (Little, 2014; Hahnemann, 1996). The homeopathic principle and practice of potentization, involving very high serial dilution, succussion and trituration whereby drugs or remedies at an infinitesimal dilutions receive the highest energy or potency (De Schepper, 2001; Hahnemann, 1996) to cure a disease is a puzzle to others especially the orthodox (allopathic) medical practitioners. How can they understand that the action of a remedy which may not contain one molecule of the original substance heals a disease? However, modern physics has begun to understand Hahnemann's vision of two centuries ago: that matter is essentially energy: that remedies based on energy can be more powerful than those limited to mere matter and that remedies are essentially information which can be conveyed to the body's own healing energy by their vibrational pattern imprinted onto the inert carrier substance (De Schepper, 2001). The potentized homeopathic remedies which have been proved to effect rapid, gentle and permanent cure of diseases, also have their applications in prostate gland and its diseases(Boericke, 2013).

The prostate gland is an exocrine gland that lies in the pelvic cavity, at the base of the urinary bladder. It is about the size of a walnut with the weight of about 8g in youth but progressively hypertrophies with age and could weigh 40g by the age of 50. It secretes a milky-like alkaline fluid that make up about 30% of seminal fluid. The alkalinity and clotting enzyme content of the semen from the prostate helps to thicken the semen, increase the motility and life span of sperm cells in the vagina (Waugh & Grant, 2014). The prostate gland also produces acid phosphatases (ACP) and PSA both of which are used in diagnosis of prostate gland diseases. The prostate typically enlarges to a limit as men grow older. As it enlarges, its secretion of PSA also increases to a normal limit (Kaplan, 1989: Polacik, 1999). some are bound to protein in blood and some are not bound. Both bound and unbound PSA are diagnostic (Partin *et al*, 2001). PSA is a glycoprotein found in the epithelial cells of the prostatic duct and acini (Statland, Perwinkel 1989).

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A SECTION OF PROSTATE AND RELATED STRUCTURES

While the PSA is used for diagnosis of prostatitis, Benign Prostate Hyperplasia (BPH) and prostate cancer in the medical laboratory, the medical radiology unit uses a scanning procedures to determine enlargement for diagnosis.

II. AIMS AND OBJECTIVES

The aims and objectives of this work are:

- (1) To compare the result of PSA of apparently normal men with those

RESULTS

The results of this research work are represented in the tables below;

RAW DATA (Test)

Patient x	PSA ng/ml	Patient	PSA ng/ml	Patient	PSA ng/ml
1	5.1	8	6.4	15	13.6
2	4.5	9	18.0	16	17.7
3	4.7	10	10.7	17	4.5
4	5.3	11	8.0	18	4.1
5	6.5	12	10.7	19	28.0

- who came to the clinic with prostate related problems
- (2) To determine from the PSA assay whether the results are supportive of or contradictory to totality of symptoms
- (3) To appraise the use of PSA assay and totality of symptoms for confirmation of accuracy of similitum.

III. MATERIALS AND METHOD

Adult males at the age range of 40-65 years, numbering seventy eight, who were referred to Heritage Medical Laboratories, Enugu for PSA assay were used in this study as test subjects. Apparently thirty normal adult males at the age range of 30-50 were used as control subjects. Blood samples were collected from either the bacilic or cephalic veins of the test and control subjects by venopuncture technique. The blood was put into plane glass test tubes respectively and allowed to clot and retract. The samples were centrifuged at about 3000 rpm for five minutes to separate the serum from the cells. Serum samples were thereafter collected in separate test tubes and stored in the refrigerator awaiting the PSA assay. The PSA of both the test and control samples were assayed using Enzyme linked immunosorbent assay (ELISA) method (Thompson, 1989). This is an immunological reaction where labeled antigens are allowed to compete with unlabeled antigen in a reaction with a limited quantity of antibodies. This type of competitive assay could be referred to as protein binding. The results of the assay are as shown below,

IV. STATISTICAL ANALYSIS

The results obtained in the study of prostate disease using PSA of test and control serum samples were represented as mean and standard deviation(mean±S.D) while students t-test was used to compare the results of tests and control patients. Determination of significant changes was done using P value (Probability limit) of P<0.05

6	17.0	13	4.3	20	5.4
7	5.8	14	3.8	21	13.8

Patient	PSA ng/ml	Patient	PSA ng/ml	Patient	PSA ng/ml
22	4.4	29	4.2	36	5.3
23	4.6	30	4.4	37	4.4
24	5.3	31	9.0	38	4.0
25	6.3	32	3.5	39	4.7
26	10.0	33	4.3	40	4.5
27	5.1	34	4.2	41	3.2
28	16.6	35	5.8	42	4.9

Patient	PSA ng/ml	Patient	PSA ng/ml	Patient	PSA ng/ml
43	4.1	50	52.0	57	4.3
44	2.0	51	3.9	58	15.7
45	38.0	52	4.5	59	3.3
46	18.0	53	3.9	60	4.2
47	11.0	54	4.2	61	3.6
48	4.0	55	4.2	62	15.2
49	3.9	56	3.9	63	15.9

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Patient	PSA ng/ml	Patient	PSA ng/ml	Patient	PSA ng/ml
63	3.8	68	8.5	73	6.0
64	3.9	69	3.0	74	15.0
65	3.9	70	11.0	75	3.6
66	7.9	71	12.0	76	3.0
67	3.9	72	3.7	77 78	3.9 14.0

MAIN RESULTS

PSA OF TEST	PSA OF CONTROL	t-Test
(n=78) 7.4± 2.1	(n=30) 3.0± 0.5	P<0.05

V. DISCUSSION

Just as symptoms have values in both homeopathic and allopathic(orthodox) medicine, results of pathological investigations are anticipated to have values to both allopathy and homeopathy (Body *et al*, 2010; Hahnemann, 1921; Kent, 2005; Boenninghausen, 1908).

The test result of prostate specific antigen (PSA) represented in the table above showed a significant increase when compared with the PSA of control result. The significant increase of test PSA over the PSA of normal control indicates a shift of serum PSA level to abnormal level (P<0.05). This means that PSA test could be used to indicate or confirm a disease (Prostate disease) following a shift from normal condition of the body. On one hand, a disease is a particular abnormal condition, a disorder of structure or function, that affects part or all of an organism. On the other hand, a disease is often construed as a medical condition associated with specific symptoms and signs (WHO,2012; Donland’s Med. Dic). It may be caused by external factors such as pathogens or it may be caused by internal dysfunctions, particularly of vital force (Immune system) (WHO,2012; Donland’s Med. Dic, Kent, 2005).

Hahnemann argues that reference should be made not to specific symptoms only but to totality of symptoms (Hahnemann, 1921). Since diseases as dynamic derangement of vital force express themselves by alteration of sensations and functions of organism solely by aggregate of perceptible symptoms, all the perceived symptoms taken together form the disease picture.

Diagnostic indices such as X-ray report or PSA result as shown above are still part of the efforts to confirm repertorization of perceived symptoms for certainty of similimum. For the case study, PSA, as shown above, the result and proper interpretation will aid and confirm repertorization on prostate disease

Serum PSA levels can mean different things in different circumstances for the health status of the prostate and the body. Most authorities agree that if one has a PSA level greater than 4ng/ml, it is an indication for abnormality or a disease. This is to say that the normal male subject should generally not secrete PSA above 4.0ng/ml in serum. There could be a temporary rise in PSA caused by urinary infection. It is called prostatitis (Inflammation of the prostate). A urinary infection from urine culture test confirms this and differentiates it from the other prostate diseases. A benign prostate enlargement condition also exists. In this case the PSA is raised in serum with more slightly greater prostate enlargement than that of prostatitis. In this case, there is a moderately raised total PSA but the free PSA ratio to total PSA is higher (>10%) than that of cancer case (Partin, *et al* 2001). The third condition of prostate disease is the cancer stage. The PSA levels in cancer is very high but the free PSA ratio is lower (<10%) than that of benign stage and cancer cells are found in the blood (Partin, *et al* 2001, Stenman, 1997).

On the concepts of totality of symptoms, one of which states that symptoms are the only unfailing guide to the selection of remedy(Hahnemann, 1921;Homeopathy Resource, 2012), modification of this point in the concept may be necessary following the consideration of the

importance of pathological diagnostic tools in modern homeopathy. C.M Boger in his approach to analysis and synthesis of symptoms agrees with Boenninghausen's approach but gives room for pathological investigation procedures (Boger, 1994). Diagnostic tools as mentioned earlier, rather than work against the ideals of homeopathic art and practice, enhances it (Waghay, 1998).

There should not be any controversy over Professor Hahnemann's insistence that it is the patient who is sick and not his parts (Hahnemann, 1921). It is note worthy that the patient cannot be healed without his parts and his parts cannot be assumed to have been healed without the patient. Since the sole mission of the physician is to restore health, rapidly, gently and permanently (Hahnemann, 1921), pathological investigations such as PSA seen in this work and others, should without controversy be accepted in homeopathy art and practice.

VI. CONCLUSION.

1 The result of this work presented PSA assay as a diagnostic tool to detect organic and functional derangement of the prostate and the body.

2 Using PSA assay as a case study of pathological diagnostic tools enhance repertorization process for accurate similimum for totality of symptoms in homeopathic treatment..

VII. SUGGESTION

This work opens up a suggestion that the research oriented pathological investigations and indices should be used to prove the efficacy of homeopathic remedies from the principles of biochemistry and physiology.

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