

EVALUATION OF THE USING OF AUTOHEMOTHERAPY IN THE TREATMENT OF CHRONIC PROSTATITIS BY REBUCK'S SKIN WINDOW TECHNIQUE

Usama Alanan¹, Aiman Harfoush², Abdulfattah Abbas³

1. Nephrologist and Physiologist - Al Andalus University- Tartus, Syria

2. Professor in urology - Tishreen University – Latakia- Syria

3. Associated professor in nephrology - Al Andalus University- Tartus, Syria

ABSTRACT:

Background: Chronic prostatitis is the first among men's genital diseases, affecting men at the age of 25-40 years. Many researchers have studied the various immune system episodes in chronic Prostatitis patients. We have adopted the method of immunological alert using the method of Autohemotherapy, and Rebeck's skin window technique study the immune status of patients with chronic inflammatory.

Methods: The study included 296 patients with chronic prostatitis. Patients were divided into two groups. The first group was treated with drugs to treat chronic prostatitis, while the second group was treated in the previous way with Autohemotherapy. Were compared with clinical and laboratory criteria. In addition to the results of Rebeck skin window technique.

Results: We found that the group receiving Autohemotherapy had a greater cure rate and the lower recurrence rate compared with the group receiving the conventional treatment alone. The results of the skin window test were better in the Autohemotherapy group.

Conclusion: There is an immune defect in all patients with chronic prostatitis. It is possible to use the skin windows test by away Rebeck not only to diagnose the immune changes in patients with chronic inflammation of the prostate, but also to monitor the results of treatment and its impact on the immune state of the body. Autohemotherapy is an effective treatment when combined with antibiotic therapy for patients with chronic prostatitis and provides excellent therapeutic results. The treatment by Autohemotherapy is safe. In the event of a significant immune changes with a satisfying story would exceed three years are advised to re-course Autohemotherapy after 6-9 months of starting treatment. The dose of 5 ml of Autohemotherapy is injected twice a week with a 3-4 day interval and for 4-6 weeks is considered to be sufficient and feasible and results in good therapeutic outcomes.

Keywords: : Chronic prostatitis, Autohemotherapy, Rebeck's skin window technique



INTRODUCTION:

Chronic prostatitis is the first among men's genital diseases, affecting men at the age of 25-40 years, and the proportion of patients at the age of 35 is about 35-40% of the total number of patients.^[1,2] Prostatitis and its complications reduce the patient's productivity and sexual disorder, which in turn has a negative effect on his

marital life as well as the psychological effects of this.^[1,4] Chronic prostatitis is known to be frequent in many cases and it is certain that germs play a key role in the development of chronic prostatitis.^[3, 5,6] It is also proven not to get good results in the treatment of this disease with antibiotics only as many researchers assert that at best in the

treatment of this disease, clinical recovery is in 60-65% of cases while bacterial recovery does not exceed 35% of cases.^[7] The researchers attribute this to a defect in the immune system in patients.^[8,9] For this reason, the study of the immunological status of patients using Rebeck skin window technique not only to diagnose the immune state but to monitor the immune status and development during treatment and then to test the effectiveness of treatment provided to patients.^[10] It is important to improve the methods of diagnosis and treatment of chronic prostatitis. ^[11] Many researchers have studied the various immune system episodes in chronic Prostatitis patients and have found significant changes in the lymphocyte type T and type B.^[12] In addition, no scientific researchers has been found on the use of Rebeck skin window technique to study the immune status of patients with chronic Prostatitis. Because of correcting the immune imbalance in these patients plays an important role in improving the results of their treatment, we have adopted the method of immunological alert using the method of Autohemotherapy where the principle of the method of taking blood from the vein of the patient and then inject the muscle at the same patient where the process of decomposition of the yeast under the influence of yeast protease and decomposition The components of the blood protein which, when absorbed, alert the various systems of the body, especially the immune system,

and this explains the effect of self-medication.

We want from this research to study the immunological changes in chronic Prostatitis patients using the RSWT to study the effectiveness of Autohemotherapy and antibiotic treatment in the treatment of patients with chronic Prostatitis. We also aim to develop an integrated treatment program for patients with chronic Prostatitis, and therapeutic doses needed for treatment.

Rebeck skin window technique (RSWT):

On the middle of the lateral face of the forearm and after sterilizing the skin with alcohol, we remove the corneal layer from the skin by sterile scalpel for a 7 x 7 mm area in two places, the distance between the two places is approximately 3 cm. Cover each area with a thin glass measuring 3 x 4 cm and install these pieces with medical adhesive. After 4 hours, one of these two pieces is removed and the second piece is removed after 24 hours. Thus, we get two pieces of glass on them with two cellular elements of the sterile infection area by a time interval of 4-24 hours and are painted with the solution of Wright or Gimza. We studied the records under the microscope by counting 300-500 cells in each record. Where we distinguish the cells of granulocyte and monocytes and determine the percentage of each of these cells in each record. Then we determine the ratio of the granulocyte to

the monocytes in each piece (in the quick preparation after 4 hours and the latest after 24 hours).^[12,13,14]

Treatment of chronic prostatitis: We have treated all chronic prostatitis patients with antibiotics (taking into account the germs' sensitivity to these antibiotics), anti-edema, vitamins and drugs that improve blood circulation in the pelvis. The treatment of antibiotics for patients with chronic prostatitis gives the opportunity to influence a specific pathogen, but the difficulties lie not only in the knowledge of the pathogen and the sensitivity of this inhibitor to antibiotics, but in the ability of these antibiotics to cross the tissue of the prostate and its presence at high concentrations. In order for antibiotics to pass through the prostate tissue, they must have lipid-lowering properties and have low protein binding.^[15] These properties are found in erythromycin, tetracycline and compounds containing both. Tetracycline therapy is well-established because it has a distinct effect on erythema and also affects chlamydia and mycoplasma. We treated all patients who had the results of culture of the prostate secretions or the third trophic tetracycline, which numbered 27 patients by giving 500 mg every 6 hours for three weeks. We also shared tetracycline with the Metronidazole, where we gave patients the Metronidazole 500 mg three times a day for two weeks, separated by a week's rest. We also treated 212 patients with Bactrim-fort with rifampicin.^[16] Trimethoprim is an

antibiotic that has the ability to dissolve in fat and its ability to bind to serum protein as well as high degree of disintegration. All this makes it pass freely on the inside of the prostate tissue and the trimethoprim increases the effectiveness of the sulfa compounds and for this reason, its involvement with these compounds leads to increased efficiency and effectiveness of treatment. The best results can be obtained with the participation of Bactrim with rifampicin because rifampicin is a powerful antibiotic that affects gram negative and gram positive, and has a high degree of fat decomposition and high degree of dislocation in the alkaline state and thus makes its concentration large in the prostate fluid.^[17] Sharing these drugs with each other increases their effect against most pathogenic bacteria and enables us to avoid the habitual use of bacteria on the drug and its resistance. Therefore, we administered rifampicin at 300 mg/12h for three weeks, in addition to the Bactrim fort twins' day for 10 days, after which we reduced the Bactrim dose by half and continued treatment for 3 weeks. We also treated 57 patients with norfloxacin at 400 mg /12h for 20 days because the bacterial susceptibility results for these patients were significantly positive in Table 6. Results of clinical and laboratory criteria in patients with chronic prostatic bronchitis were reported 1-2 months after initiation of treatment. And the percentage of improvement of these standards in each group.

In addition, we treated 148 patients by Autohemotherapy by injecting 5 ml of the patient's blood vein into the muscle twice a week, separated by 3-4 days. The treatment course consisted of 8-12 muscle syringes.

Autohemotherapy: Autohemotherapy, referring here to the immediate intramuscular or subcutaneous reinjection of one's own blood, appears to comprise a compelling therapy option in the absence of others, one that may also merit replacing other (experimental and often risky) attempts at therapy currently in vogue. Since the introduction of this method by Ravaut in 1913.^[18] Autohemotherapy has been employed in a wide range of disease conditions. Several hundred articles on the subject have been published in mainstream medical journals mostly from the early 1920s through the early 1940s, as listed in the various Index Medicus volumes (generally under the subject category "serum therapy"). Additionally, the subcutaneous or intramuscular reinjection of autologous blood or components is often discussed in the literature without specific reference to the term "Autohemotherapy", as may be noted in a number of contemporary examples.^[19] Autohemotherapy's attributes of safety, low cost, and immediate availability suggest continuing potential utility against a broad spectrum of diseases in which a causative organism disseminates through the bloodstream, regardless of the source or identity of the causative

organism - including the likes of malaria, ebola and AIDS. (An intramuscular form of autohemotherapy, as reportedly successfully used against malaria, has been already been proposed for AIDS.^[20] as has an experimental alternate form.^[21] In cases where an inaccessible, persistent focus of infection does not exist, autohemotherapy may indeed be sufficient to effect a cure, and might therein comprise a "magic shot".

MATERIALS AND METHODS:

The study included 296 patients with chronic prostatitis who were treated at Assad University Hospital in Tishreen University in Latakia, Syria from 2014 to 2016. The ages of patients was between 26-48 years with an average age of patients 37.3 years. Patients were divided into two groups of 148 patients. The first group was treated with drugs to treat chronic prostatitis (antibiotic, ant edema, vitamins, etc.), while the second group was treated in the previous way with Autohemotherapy by taking 5 mm of venous blood and injecting it at the same patient twice a week for 4- 6 months depending on the severity of the immunological changes in the patients, the results of the treatment of the two groups were compared with clinical and laboratory criteria. These criteria included pain in the anus and perineum and lower urinary symptoms (difficulty urinating, multiple urination, etc) and accompanying sexual disorders (Premature ejaculation, heartburn during ejaculation, weak erection of the penis) and the change in the size and strength

of the prostate and the results of screening and implantation of prostate secretions and semen change, in addition to the results of Rebeck skin window technique. A group of general tests were performed for the patients, in addition to *the three cups test* and culture the contents of the third cup. Which the patient is asked to urinate in the first cup about 20 ml and in the second cup a similar quantity then the doctor massage the prostate of the patient and then urinate the patient the full amount of the remaining of the urine in the third cup). The three urine samples are examined. Changes in the third sample indicate that there is a disease in the prostate.

Notes: Compliance with Ethical Standards:

- In this research, ethical standards were complied with in accordance with the Helsinki Declaration.
- There is no conflict of interest.
- The study was conducted on humans (patients with chronic prostatitis), so that the only test that was added to the traditional therapeutic method was the skin window test and Autohemotherapy.
- The treatment method was explained to all patients. The consent form is in the patient's statement attached to this research.

There is no special grant or funding for this research (this research was conducted at Al-Assad University

Hospital, Tishreen University, Latakia / Syria). Al-Assad University Hospital provides free medical service to all patients and provides all available facilities free of charge for scientific research.

Static analysis: We use SPSS-22 program to statistical analysis.

RESULTS:

The number of patients in the study was 296 patients with chronic prostatitis. Their ages ranged from 26 to 48 years with an average age of 37.3 years. The majority of patients were between the ages of 31-40 years (66.89%). Table 1 shows a distribution of a sample by age.

The normal results of the **Rebeck skin window** test (at the control group) after 4 hours were 90.5% of Neutrophil and 9.5% of monocytes while 24 hours later were 19.5% of Neutrophil and 80.5% of monocytes. The results are shown in Table 2.

Patients were divided into two groups, the first was treated in the traditional way to treat chronic prostatitis, while the second group was treated in the previous way with AHT. After that, the **skin window** test were applied to patients with chronic prostatitis before starting treatment. We found that the results of the test were at the first group at the fourth hour 67.1% of Neutrophil and 32.9% of monocytes, and at 24 hours were 29.2% of Neutrophil and 70.8% of monocytes. While at the second group, at the fourth hour 66.9%

of many nuclei and 33.1% of monocytes, and at 24 hours were 28.8% of Neutrophil and 71.2% of monocytes. The results of the **skin window** test after treatment were in the first group at fourth hour 69.5% of the Neutrophil and 30.5% of the monocytes, and at 24 hour 32% of Neutrophil and 68% of monocyte. While in the second group, at the fourth hour 89% of the Neutrophil and 11% of the monocytes. At 24 hours were 18.5% of the Neutrophil and 81.5% of the monocytes. The results are shown in Table 3.

We found that the results of culture of prostate secretions or the contents of the third cup were positive in 269 patients (90.88% of patients). Gram-negative bacteria were found in 189 patients (63.85%), the most common was E.coli. and Gram positive bacteria in 80 patients (27.03%), The most common was staphylococcus and the culture was negative in 27 patients (9.12%). Table 4 shows the positive results to culture implantation of prostate.

We studied clinical symptoms in patients before starting treatment. We found that the most frequent clinical symptoms in patients with chronic prostatitis were the change in the size and strength of the prostate, where it was found in 240 patients (81.08%) of the total patients, followed by sexual disorders in 137 patients (46.28%), and lower urinary symptoms in 124 patients), And pain in the perineum area is present in 93 patients (31.41%). We assessed the clinical symptoms after treatment. We

observed that the percentage improvement in clinical and laboratory criteria in the second group was much better than the first group, and some criteria reached 91.22% (seminal fluid change) while the best criteria in the first group improved to only 60% In the anal area. Table 5 shows clinical and laboratory symptoms in patients.

Of all cases treated with AHT, only 17 patients had a recurrence of the total number of patients. When we went back to their cases, we found that their immune disorders were more severe than those of the other patients in this group, so we returned the course of AHT for these patients. While 58 of the 148 patients who did not receive AHT had a recurrence. Table 6 shows percentage of recurrence the chronic prostatitis in tow groups.

DISCUSSION:

In studying the percentage of the distribution of the results of bacterial culture, we found that the largest percentage of Gram-negative bacteria were E.coli.^[22] where found it in 143 patients (53.15%) of the total positive culture.^[23] While the largest percentage of Gram-positive bacteria was found in 46 patients (17.11%) of the total positive culture. The absence of germs in the prostatic fluid or the contents of the third cup in 27 patients (9.12%) of the patients may be due to the transformation of these germs into a resistant form as they do not grow on the normal implant media or because

the causative factor is viruses, fungi or mycoplasma.^[24,25] The percentage of Neutrophils in preparation after 4 hours accounted for about 67% and after 24 hours 29%. While the natural proportions were 90.5% and 19.5%, respectively, This indicates a decrease in the migration of immune cells in the preparation after 4 hours, and an increase in migration in the preparations after 24 hours to the sterile inflammation area. About monocytes, we found that its percentage in the preparation after 4 hours was 33% and in the percentage after 24 hours was 71%, while the natural rates are 9.5% and 80.5%, respectively. Thus, there is a significant imbalance in the ratio of monocytes and Neutrophils in both cases compared with normal values, which is a change in the presence of immune deficiency in these patients^[26,27] By reading the results of the skin windows test, the immune changes in patients in the first group with chronic prostatitis in the preparations after 4 to 24 hours did not return to normal, but they became worse than before the treatment of antibiotics in some patients, and this seems to be The frequent reversion of chronic prostatitis in these patients is explained.^[28] After studying the clinical and laboratory criteria in the first group, we found that the rate of improvement in these standards ranged between 40% and 47.13% of the total number of patients. During the first six months after treatment, we reviewed 58 patients (39.18%) of patients in this group who had relapses in some clinical and

laboratory criteria. While we found the return of immune deficiency in patients in the second group whom treated by AHT to normal in both preparations after 4 and 24 hours.^[29] By studying of clinical and laboratory criteria in patients in the second group, we found that the rate of improvement in these standards ranged between 8.78% and 30.89% of the total number of patients. While only 17 patients reviewed us (11.48%), where they found a decline in some clinical and laboratory criteria, which explains the good effect of self-medication in patients with this group.^[30]

It should be noted that no complications were seen in the AHT group, except for a slight rise in temperature after the first injection of self-blood in 19 patients, which was overcome by giving oral contraceptives for one or two days at most.

CONCLUSION:

There is an immune defect in all patients with chronic prostatitis, this imbalance is reflected in the migration of immune cells to the sterile inflammatory focus. Giving antibiotics for a long period of time with the length of the disease period adversely affects the body's immune resistance. It is possible to use the skin windows test by away Rebuke not only to diagnose the immune changes in patients with chronic inflammation of the prostate, but also to monitor the results of treatment and its impact on the immune state of the body. Autohemotherapy is an effective

treatment when combined with antibiotic therapy for patients with chronic prostatitis and provides excellent therapeutic results. The treatment by Autohemotherapy is safe, where patients did not occur when any significant complications. In the event of a significant immune changes with a satisfying story would exceed three years are advised to re-course Autohemotherapy after 6-9 months of

starting treatment. The dose of 5 ml of Autohemotherapy is injected twice a week with a 3-4 day interval and for 4-6 weeks is considered to be sufficient and feasible and results in good therapeutic outcomes.

Acknowledgments: The authors would like to thank the Alandalus University, Tartous, Syria, for the support in conducting this study.

REFERENCES:

1. Celik, Orcun, et al. "To evaluate the etiology of erectile dysfunction: What should we know currently?." *Archivio Italiano di Urologia e Andrologia* 86.3 (2014): 197-201.
2. Voskanian, G. A., and A. Z. Vinarov. "Antibacterial therapy of patients with chronic prostatitis: finding a way out of therapeutic" deadlock". *Urologiia (Moscow, Russia: 1999)* 3 (2013): 89-92.
3. Herati, Amin S., and Robert Miles Moldwin. "Alternative therapies in the management of chronic prostatitis/chronic pelvic pain syndrome." *World journal of urology* 31.4 (2013): 761-766.
4. Papeš, Dino, et al. "Detection of sexually transmitted pathogens in patients with chronic prostatitis/chronic pelvic pain: a prospective clinical study." *International journal of STD & AIDS* (2017): 0956462417691440.
5. Xiong, Youyi, et al. "Anti-inflammatory and antioxidant effect of modified Bazhengsan in a rat model of chronic bacterial prostatitis." *Journal of Ethnopharmacology* 198 (2017): 73-80.
6. Wagenlehner, F., et al. "Prostatitis and andrological implications." *Minerva urologica e nefrologica= The Italian journal of urology and nephrology* 65.2 (2013): 117-123.
7. Demidko, IuL, et al. "The use of vitaprost in the treatment of patients with prostate diseases." *Urologiia (Moscow, Russia: 1999)* 1 (2013): 62-4.
8. Shatokhin, M. N., et al. "Correction of immunometabolic disorders in chronic bacterial prostatitis." *Urologiia (Moscow, Russia: 1999)* 5 (2011): 39.
9. Teodorovich, O. V., et al. "Correction of local immunometabolic disturbances combined with chronic prostatitis in prostatic adenoma." *Urologiia (Moscow, Russia: 1999)* 5 (2009): 22-26.
10. Jessop, J. D., B. Vernon-Roberts, and J. A. C. Q. U. E. L. I. N. E. Harris. "Effects of gold salts and prednisolone on inflammatory cells. I. Phagocytic activity of macrophages and polymorphs in inflammatory exudates studied by a "skin-window" technique in rheumatoid and control patients." *Annals of the rheumatic diseases* 32.4 (1973): 294.
11. Benelli, Andrea, et al. "Prostatitis and its Management." *European Urology Supplements* 16.4 (2017): 132-137.

12. Dale, David C., and S. M. Wolff. "Skin window studies of the acute inflammatory responses of neutropenic patients." *Blood* 38.2 (1971): 138-142.
13. Wandall, J. H., and V. Binder. "Leucocyte function in Crohn's disease. Studies on mobilisation using a quantitative skin window technique and on the function of circulating polymorphonuclear leucocytes in vitro." *Gut* 23.3 (1982): 173-180.
14. JOHNSTON JR, RICHARD B. "Polymorphonuclear and Mononuclear Phagocytes." *Biochemistry and Metabolism* 2 (2013): 397.
15. Benelli, Andrea, et al. "Prostatitis and its Management." *European Urology Supplements* 16.4 (2017): 132-137.
16. Stamey, Thomas A., E. M. Meares, and D. G. Winningham. "Chronic bacterial prostatitis and the diffusion of drugs into prostatic fluid." *The Journal of urology* 103.2 (1970): 187-194.
17. Franco, Juan VA, et al. "Pharmacological interventions for treating chronic prostatitis/chronic pelvic pain syndrome." *The Cochrane Library* (2017).
18. Ravaut, M. Paul, "Essai sur L'Autoh,matoth,rapie dans Quelques Dermatoses", *Ann. De Derm. et Syph.* 4:292-6, May 1913.
19. Khodanova, RN, et al, *Journal of Hygiene, Epidemiology, Microbiology and Immunology*, 1989, 33(4):463-9.
20. Shakman, S.H., "Cuyugan's Malaria Treatment; Aid vs AIDS?", *AAAS Pacific Division Proceedings* Vol. 7:42 (1988).
21. Bocci, Vielio. "Ozonization of blood for the therapy of viral diseases and immunodeficiencies. A hypothesis." *Medical Hypotheses* 39.1 (1992): 30-34.
22. Bergman, B. "On the relevance of gram-positive bacteria in prostatitis." *Infection* 22 (1994): S22-S22.
23. Schaeffer, Edward M. "Re: Escherichia coli Isolates from Patients with Bacteremic Urinary Tract Infection are Genetically Distinct from Those Derived from Sepsis following Prostate Transrectal Biopsy." *The Journal of Urology* 197.1 (2017): 167.
24. Jones, S. R. "Letter: Prostatitis as cause of antibody-coated bacteria in urine." *The New England journal of medicine* 291.7 (1974): 365-365.
25. Mändar, Reet, et al. "Seminal microbiome in men with and without prostatitis." *International Journal of Urology* 24.3 (2017): 211-216.
26. Eiding, D., R. Wilkinson, and B. Rose. "A study of cellular responses in immune reactions utilizing the skin window technique: I. Immediate hypersensitivity reactions." *Journal of Allergy* 35.1 (1964): 77-85.
27. Marks, D. JB, et al. "Modified skin window technique for the extended characterisation of acute inflammation in humans." *Inflammation Research* 56.4 (2007): 168-174.
28. Alexander, Richard B., et al. "Elevated levels of proinflammatory cytokines in the semen of patients with chronic prostatitis/chronic pelvic pain syndrome." *Urology* 52.5 (1998): 744-749.
29. Miller, Lauri J., et al. "Interleukin-10 levels in seminal plasma: implications for chronic prostatitis-chronic pelvic pain syndrome." *The Journal of urology* 167.2 (2002): 753-756.
30. Arkhypova, Kateryna, et al. "Low-intensity microwave autohemotherapy as a feasible alternative drug-free technique." *Microwave Symposium*

TABLES:

Table (1): distribution of a patients by age

Age(years)	No.	%
26-30	35	11.83%
31-40	178	66.89%
41-48	83	21.28%

Table 2: Natural values for the skin windows test

Type of cells	After 4 hours	After 24 hours
Neutrophil	90.5%	19.5%
Monocyte	9.5%	80.5%

Table (3): Results of the study of the skin windows test in patients with chronic prostatitis

	Group A				Group B				P-value
	before treat		after treat		before treat		after treat		
	4 h	24 h	4 h	24 h	4 h	24 h	4 h	24 h	
Neutrophil	67.1%	29.2%	69.5%	32%	66.9%	28.8%	89%	18.5%	0.001
Monocyte	32.9%	70.8%	30.5%	68%	33.1%	71.2%	11%	81.5%	

Table 4: Bacterial Spectrometry in Patients with Chronic Prostatitis

Types	number	%
E.coli	143	53.15%
Klebsiella	27	10.03%
Proteus	19	7.06%
Staphylococcus	46	17.11%
Streptococcus	18	6.69%
Enterococcus	16	5.95%

Table (5): Results of the study of clinical and laboratory criteria in patients with chronic prostatitis

	Total		Group A			Group B		
			Before	after	Cure%	Before	after	Cure%
Clinical and laboratory criteria			148	148		148	148	
Pain in the anal area	93	31.41%	45	18	60%	48	6	87.50%
Lower urinary symptoms	124	41.89%	60	25	58.33%	64	6	90.63%
Escorting sexual disorders	137	46.28%	69	33	52.17%	68	21	69.12%
Change in the size and strength of the prostate	240	81.08%	119	51	57.14%	121	23	80.99%
hanging seminal composition	229	77.36%	115	50	56.52%	114	10	91.23%
Change in examination of prostate secretions	296	100%	148	60	59.46%	148	22	85.14%
P-value	0.008							

Table (6): percentage of recurrence the chronic prostatitis in tow groups

	patients	recurrence	P value
With Autohemotherapy	148	17	0.005
Without Autohemotherapy	148	57	