

Management of Chronic Prostatitis/Chronic Pelvic Pain Syndrome

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Abstract: *Context:* First cause of seeking for urologic consultation in the world, chronic prostatitis is a real public health care problem. *Objective:* Analyze epidemioclinical aspect of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) and proceed in management assessment. *Patients and methods:* Descriptive Prospective and analytique study about all CP/CPPS admitted in our service from 1st January 2016 to 30 October 2016. *Results:* Fifty fours (54) patients have been enrolled, accounting for 9.85% of our activities. Mean age: 36.24±13.44. The majorities (87, 50%) of our patients were celibataire or married, but living separated to their wife. They were doing anxiogenic and prolonged sitting activities (Car driver, Seller, Tailor). The most frequent (60%) clinical manifestation was Pelviperineal and/or testicular pain. Complaints were often associated to uretrovesical obstruction and irritation Signs, sexual dysfunction. Digital rectal examination tenderness was the only physical examination founding. We found solely 4 cases of PCB type II with E Coli as germ responsible. PCNB type IIIA was the most prevalent (48%). Systematical antibiotherapy based on quinolone using alone or in combination with azithromycin has been adopted. It's associated to AINS, alpha blockers and anxiolytis. Therapeutic result has been evaluated during 4-6 months after treatment and was judged satisfactory (NIH-CPSI decrease of 6 points) for 72.50% patients. *Conclusion:* Multimodal treatment taking account to the main symptom and socioprofessional habits is the only way for good result. It necessary to found new bio markers in the aim to help for diagnostic and treatment result assessment.

Keywords: Chronic Prostatitis, Pelviperineal Pain, Expressed Prostatic Secretion, Digital Rectal Xamination

1. Introduction

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPDS) is a clinical entity characterized by chronic inflammation of the prostate and chronic pelvic-perineal pain; often associated with signs of urinary obstruction and irritation as well as sexual disorders. It is now a public health

care problem, because in addition to the fact that it is the leading cause of urological consultation in most part of countries; it mainly affects young people and can lead to serious complications. Because of its recurrent and disabling nature, the psychological and sexual disturbances that are often associated with it. CP/CPDS affects patient's life quality, weakens our economic and socio-emotional balances [1] The disproportion between the patient's complaints with

CP/CPDS and, the result of the physical and biological examination; the lack of a standard means to establish the diagnosis and evaluate actually using therapeutic modalities, make its management difficult.

The objective of this study was to analyse the epidemioclinical aspects of CP/CPDS and evaluate its diagnostic and therapeutic management in our department.

2. Materials and Method

Prospective and analytical descriptive study including all patients received in outpatient care between 1st January to 30 October 2016 with the following reason: Pain or feeling of pelvic-perineal discomfort associated with urogenital

functioning disorders for at least three months.

The following information: age, marital status, professional activities, reasons for consultation and clinical manifestations will be collected. The analysis will also cover the results of examinations such as: Cytobacteriological examination of urine, expressed prostatic secretion or terminal urine post-massage, urethral swab culture, spermogram/spermoculture, chlamydia serology and bladder-prostatic ultrasound. Cystourethroscopy and PSA assay when needed. The national institut health-chronic prostatitis symptom index NIH-CPSI [2] is used to objectively measure the severity of manifestations and evaluate treatment outcomes.

Data analysis was performed by SPSS 16.

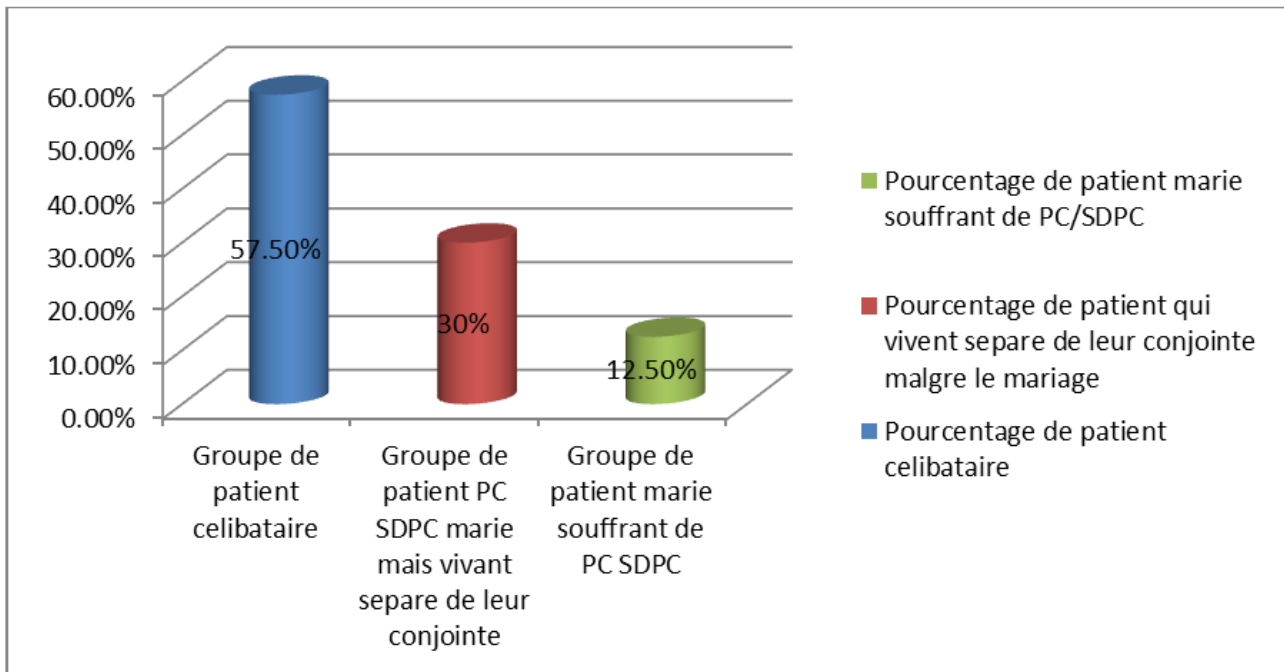


Figure 1. Distribution of patients by marital status.

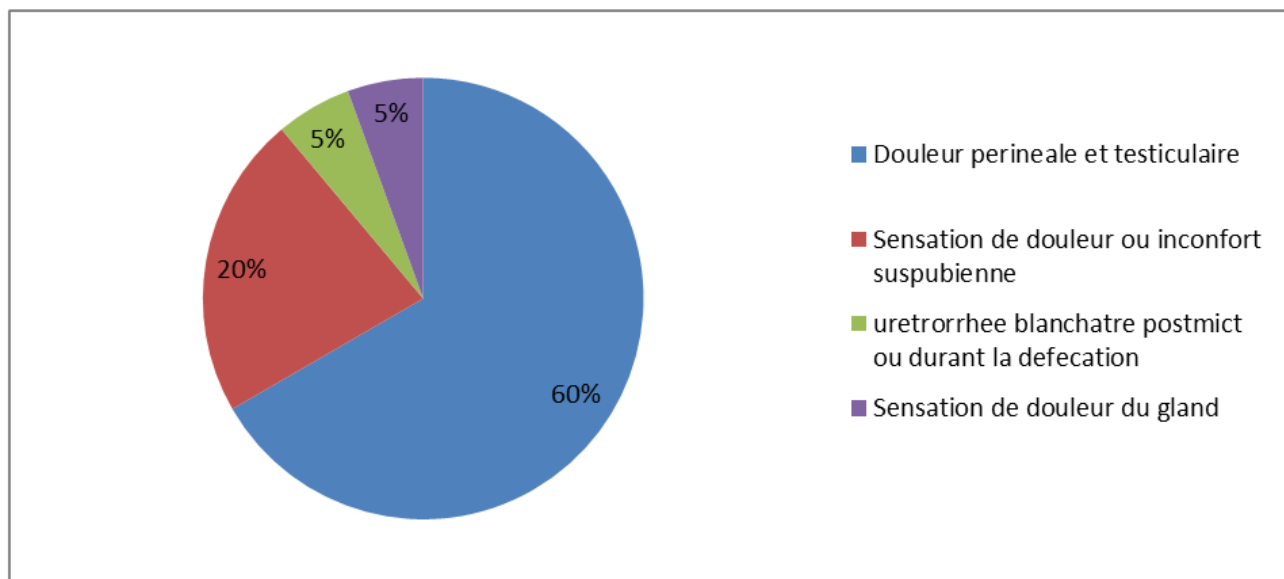


Figure 2. Distribution of patients by the reason of consultation.

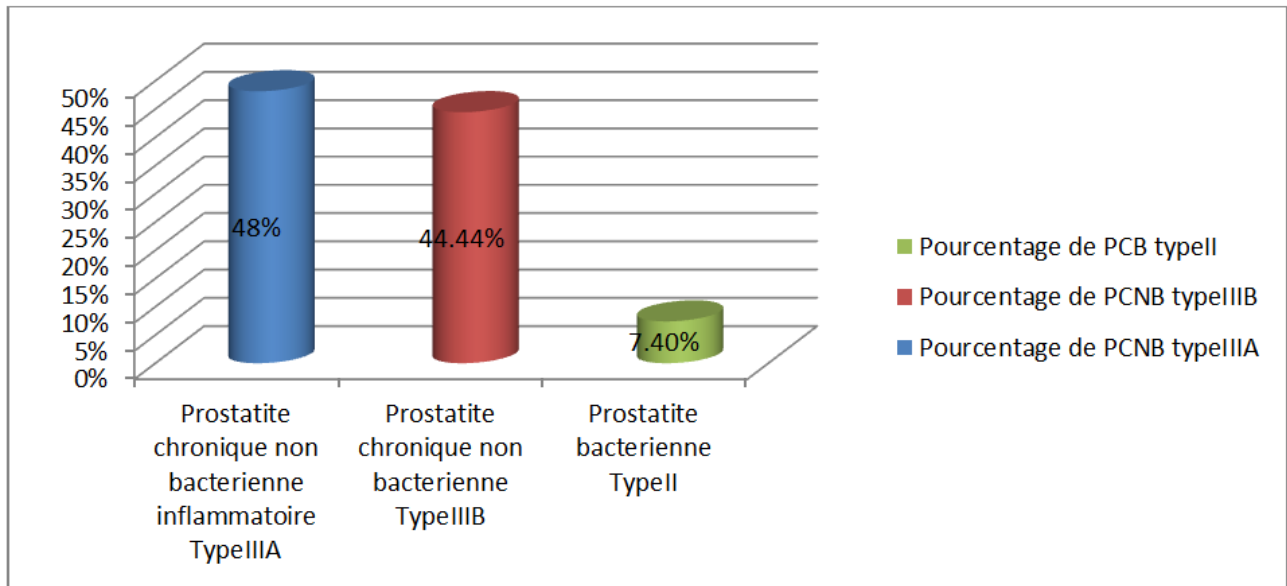


Figure 3. Distribution of patients according American NIH classification.

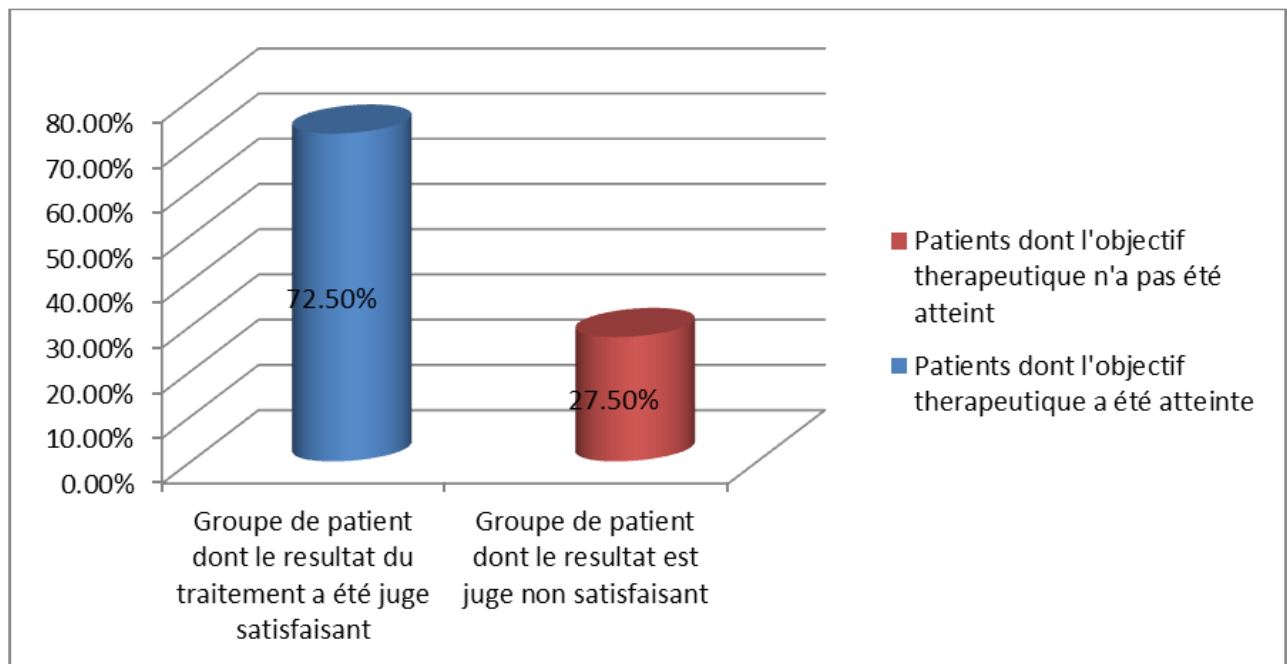


Figure 4. Distribution according to therapeutic outcome based on NIH- CPSI.

Table 1. Sexual's troubles associated to CP/CPSP.

| Characteristics of sexual disorder | Frequence | Percentage |
|--|-----------|------------|
| Sexual troubles (low libido, Erectil dysfunction, Early ejaculation) | 14 | 25,92% |
| fertility trouble | 4 | 7,40% |
| Psychosomatics trouble | 10 | 18,51% |

3. Results

3.1. Epidemiology

During 10 months, we collected 54 cases of CP/SDPC in our activities, a rate of 9.85%. The most predominant group was (19-40 years) with an average of 36.24 ± 13.44 . The

majority (87.50%) of these patients were single or married, but living separated to their spouses for various reasons (Figure 1). Our patients were mostly drivers, commercial employees, tailors, students, young graduates without a work etc.

3.2. Motif of Consultation

The complaints and clinical manifestation were quite

varied and complex; the main reason (60%) for consultation was pelvic-perineal and/or testicular pain (Figure 2). They were almost associated with urinary obstruction signs (urination delay, weakness of the jet) or bladder irritation signs (pollakiuria, burning urination, urgenturia). Sexual function disorders namely: decrease of libido associated with erectile dysfunction or premature ejaculation were found in 25.91% of patients. In addition to sexual disorders, 7.40% had a secondary disturbance in fertility and 18.51% of patients had isolated or associated psychosomatic disorders (Table 1). 4.76% of our patients had a history of subacute urethritis. 4.76% of our patients had a history of varicocele.

3.3. Diagnostic

Physical examination: Digital rectal examination has found normal morphology and consistency prostatic gland in the majority of patients. It was sensitive in 24 patients, accounting for 44.44%. Vesico-prostatic ultrasound was able to highlight cases of prostate calcification.

Different types of PC were found in our series (Figure 3):

We had 4 cases of type II bacterial PC with *E. coli* as the germ responsible. The predominant clinical form in our series was CNBP (chronic nonbacterial prostatitis) type IIIA accounting for 48%. There is no positive correlation between the level of leukocytes in expressed prostatic serum/sperm and the types of CP, its clinical manifestations severity (NIH_CPSI).

Correlation coefficient $r = -0.58$ $p = 0.000$ Intercept = 39.6

3.4. Therapeutic Modalities

Our treatment option was systematic antibiotherapy for 3 weeks, based on 2-3rd generation of fluoroquinolones (ofloxacin or levofloxacin) used alone or ciprofloxacin in combination with azithromycin. It was often combined with other treatments such as: NSAIDs, an alpha-blocking anti-adrenergic or anxiolytic drugs. The result was considered satisfactory (decrease in the NIH-CPSI score by 6 points) in 29 patients accounting for 72.50% (Figure 4).

4. Discussion

Epidemiological and socio-economic analysis of our patients gives results that corroborate with previous results. Given the recurrent and disabling nature of CP/CPDS; the marked increase in its prevalence and the fact that the most economically active social group, namely adolescents and young adults, are the most affected, contribute to increase the socio-economic impact of this disease. Moreover, despite the controversies surrounding its pathogenesis; our results show that certain socio-economic aspects or conditions such as poorly supporting single life or marital difficulties, professional activities requiring prolonged sitting as well as continuous stress could promote the occurrence of CP/CPDS. Clinically, CP/CPS is manifested by quite varied, complex and non-specific signs. Pelvic-perineal and/or testicular pain has been often evoked by our patients. But they have been

almost always associated with signs of irritation or urinary obstruction (burning and delayed initiation of urination, pollakiuria, urgency etc).

Our results are similar to others [3, 4], when it comes to the association of PC/CPDS to sexual disorder. In addition to physical suffering, 25.91% of our patients also complained of sexual disorders such as decreased libido, erectile dysfunction and premature ejaculation; something that by nature contributes to amplifying the harmful impact of this disease on the psychological balance and life quality of our patients. The possibility of male fertility impairment by inflammation or chronic infection of prostatic gland has been the subject of several studies [5, 6]. Many mechanisms were evoked without unanimity. The prevalence of these fertility disorders in our series was 7.40% and the predominant seminological abnormality was oligo-aspermia. Although the basis of the reference classification is the variation in the level of leukocytes contained in prostate serum or semen; our study as well as so many others [7] struggles to establish a frank and faithful correlation between the severity of clinical signs and leukocyte levels. This is why, like other authors, there is a need to evaluate other biomarkers. Regarding the physical examination, the only contributing sign was a sensitive digital rectal exam, which has been found in about 45% of our patients.

Meares-stamey 4 glasses test, which is the comparative analysis of urine coming from different portions of the lower urinary tract, has long been considered as the gold standard for PC SDPC diagnosis, as well as in post-therapeutic follow-up evaluation [8]. But this test seems to be too complicated for systematic use in our daily practice. This is why, as suggested by other teams [9], we were satisfied with an ECBU and the EPS examination, failing which we resort to the examination of urine post prostatic massage or spermogram/spermoculture.

Some potentially serious pathologies such as: Prostate cancer, varicocele can mimic chronic prostatitis, for which reason we have often resorted to vesico-prostatic ultrasound, Doppler examination and PSA assay to eliminate these pathologies and therefore guarantee the reliability of treatment. The similarity between our observation and the literature [10] is obvious; due to the prevalence of CP type II (7.40%) in our study, but also to the nature of isolated germ in the prostate fluid. As suggested by others [11], the CNBP type III A remains predominant (48.14%) in our series. This may be explained by the fact that the using detection means are less effective or inappropriate to identify the germ responsible of infection, patient on prior antibiotherapy begins the healing phase or that the virulence of the bacteria has been attenuated by inadequate antibiotherapy. The etiopathogenesis of CP/CPS is recognized to be complex and uncertain; in addition to the controversial role of bacteria, clinical and experimental studies have objectified in these patients a sympathometric spastic obstruction in the bladder neck and prostate urethra as well as stress-related pelvic-perineal neuromuscular disorders [12]. In therapeutic management, we used quinolones as a first-choice antibiotic;

because of their antibacterial spectrum, pharmacokinetic property and fairly high concentration in prostate tissue and seminal fluids.

This antibiotherapy has been combined as needed with NSAID, adrenergic receptor antagonists or anxiolytics. In accordance with the recommendations of the NIH-CPSI collaborative group [13]; we had satisfactory results in 72.50% of our patients. Patients who did not respond favourably to treatment, after elimination of other infectious diseases such as urogenital tuberculosis, received psychological support and accompaniment for behaviour change. However, this study is limited by insufficient staffing and the absence of a control group in its design.

5. Conclusion

CP/CPDS remains a real public health care problem. New studies need to be initiated in order to find reliable biomarkers that can help in the diagnosis and evaluation of therapeutic modalities; elucidate the mechanisms through which CP/CPDS lead to fertility impairment. Concerning patient's management, a methodical and meticulous interrogation are necessary in order to clarify the risk factors responsible. Nevertheless, In addition to systematic antibiotherapy; treatment individualization taking into account the predominant symptom and its evaluation on the basis of NIH-CPSI is now mandatory.

Conflict of Interest

All the authors do not have possible conflicts of interest.

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