Short Communication

Infectious etiology of male urethritis at hospital Aristide Le Dantec (Dakar Sénégal)

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Introduction: the aim of our study was to determine the etiological, clinical and the outcome aspects of infectious urethritis in Aristide Le Dantec’s Hospital. Material and methods: a study during six months (from October 2009 to March 2010) including all the cases of urethritis occurring in men and observed in the dermatological and urological departments of Aristide Le Dantec’s Hospital. Results: 74 patients were recruited, including 36 patients in the dermatological department and 38 in the urological department. The mucopurulent and serous discharge was found in 50 cases of acute urethritis and 24 cases of chronic urethritis. Bacteriological examinations were positive in 69 cases. The germs responsible of acute urethritis; Neisseria gonorrhoeae (n = 34), Candida albicans (n = 2) and Trichomonas vaginalis (n = 2). The association Neisseria gonorrhoeae and Chlamydia was found in 5 cases. The germs responsible for chronic urethritis, Chlamydia trachomatis (n = 24) and Ureaplasma urealyticum were found in one case. Retroviral serology was positive in 4 patients. The outcome after treatment was favorable in 69 patients and 5 patients were lost of view. Conclusion: Urethritis are still a present complaint in dermatology and venereology and constitute a real public health problem despite efforts in the fight against sexually transmitted infections.

Keywords: urethritis man, Dantec, Senegal

INTRODUCTION

In Senegal, the infectious urethritis is still a common cause of attendances in dermatology and venereology despite information and educational policies applied to the fight against sexually transmitted infections (STDs). So they represent 80 % of the STDs listed in man (Ly et al., 2006). The etiologic diagnosis remains difficult because of the lack of the bacteriological explorations specially the Polymerase Chain Reaction (PCR). The diagnosis delay can increase the poor outcome of the disease among of them gravest of which are the urethral shrinkage, the male infertility or the sepsis.

The purpose of our study was to determine etiological, clinical and outcomes aspects of the urethritis at the Hospital Dantec of Dakar.

MATERIALS AND METHODS

It was a prospective study during six months from october 2009 to march 2010. We recruited all the cases of urethritis observed in men attended to the dermatologic and urologic wards of the Hospital Dantec of Dakar. The diagnosis of urethritis was based on the presence of urethral discharge, pruritus and or urethral pain associated or not to urinary signs (mictional burns, dysuria, pollakiuria, precipitant urination).

The bacteriological investigation concerned the urethral sample, the HIV serology and the dosage of antigen for Chlamydia Trachomatis. Antibiotics adapted to the germ found and the antibiogramm have been administrated for each patient and his or her sexual partner with a
bacteriological control performed for all of them in the fifteenth day.

RESULTS

During these 6 months, 74 patients were recruited among of them 36 patients (48.6%) in the urologic ward and 38 patients (51%) in the dermatologic ward, represented 0.98% of all the patients seen in attendances during that period. The mean age was 31.09 years (range 16-49). Singles represented 39 cases (52.7%), divorcees 6 cases (8.1%), married 29 cases (39.2%). Among married peoples, 21 (28.4%) patients were monogamous and polygamist have been recorded in 8 cases (10.81). An upper level of study was found in 35 cases (47.3%) and primary school in 7 cases (9.5%). Only one subject was an illiterate. In medical history we noted a circumcision in 72 cases (97.3%), a STDs in 13 cases (17.58%). A sexual risk behavior was admitted by 64 patients (86.48 %) among whom 36 single person, 16 married (11monogamous and 5 polygamists) and 5 divorcees. The partners were unknown in 34 cases and among them 8 were workers of the sex. Multiple partners were noted in 5 cases in single person, 11 cases to the monogamous and 2 cases to polygamists. Anogenital and orogenital intercourses were respectively reported in 12 cases and 7 cases. Homosexuality admitted in 1 case, a bisexuality in 3 cases.

The urethral flow was the motive of consultation for all the patients in a mean delay of 17 days with extremes of 3 and 100 days. A previous treatment was established by a health technician in 4 cases, a traditherapist in 4 cases, a pharmacist in 3 cases and by the patient himself in one case. The urethral flow was acute and mucopurulent type in 50 cases (67.5%), chronic and serous types in 24 cases (32.5%). We noted urethral meatus inflammation in 69 cases (93 %), a dysuria in 21 cases (28.4 %), mictional burns in 14 cases (18.9 %), a balanitis in 6 cases (8 %), an epididymitis in 1 case as well as a prostatitis. The loco regional examination highlighted inflammatory inguinal microadenopathy in 7 cases. The bacteriological examinations performed in all the patients were positive in 68 cases (92%) and negative in 6 cases (8.10%). The splitting of the cases according to the pathogenic agents is illustrated on table 1. The direct examination was positive in 54 cases (73 %), negative in 20 cases. The culture of Neisseria gonorrhoea realized in 34 cases was positive in 30 samples. The Chlamydia antigenemia made for all the patients was positive in 24 cases (32.43 %) in 5 cases, Neisseria gonorrhoea was isolated at direct examination. The retroviral serology for HIV was done in 42 cases and positive in 4 cases (5.4%). The informed consent for that serology was not obtained in 32 patients (43.2%). The administered antibiotics and the results of antibiogramms are recorded in table 2. A concomitant treatment for one or several partners was only 48 cases (64.9 %). An absence of partner’s notification was noted in 8 cases (10.8 %).The outcome was favorable in 69 cases (93.24 %) with clinical and bacteriological recover in the fifteenth day in 12 cases and only clinical recover in 57 cases (77.02 %). Five
patients were lost to follow up after treatment.

**DISCUSSION**

We report the etiologic aspect of males urethritis noted on 74 patients from a 6 months prospective study. The limits of our study were the non realization of the antibiogramm for half of the patients because of lack of financial mean and the short passing of time which did not allow to estimate the possible consequences on the fertility. Urethritis always remains a motive for consultation despite of the academic level, the policies of information, education, and communication applied to the STDs in Senegal.

The frequency of hospital attendances of 0.89 % is lower by far than that of the general population. Indeed a lot of case of urethritis are taken care in the satellites sanitary structures by means of the syndromic approach recommended by the WHO from 1980s. The majority of the patients consult firstly a tradition therapist because of the estrangement and the insufficiency of the structures of health, the sexual modesty of the urogenital examination and some difficulty to confess the sexual behavior contrary to the religious principles. The average age of onset 31 years joins that of 30 years, 31 years and 32 years reported in the bissau guinean (Gomes et al., 2001) and french series (Lefevre et al., 1987). The absence of condoms use by these young people were a contributing factor especially as they were single for the greater part, had several unknown and often occasional partners, making difficult the collective care. The workers of the sex represented on the other hand only 5.6 % of the partners. Anogenital and orogenital intercourses condomless respectively found in 16 % et 9.45% as well as homosexuality, were a determining factor in the occurrence of urethritis although that higher frequencies are noted in the European series. Hérida and coll. (Hérida et al., 2004) had mentioned orogenital intercourses in 55 % of the cases, anogenital ones in 46 % of the cases and homosexuality in 87 % of the cases. The homosexuality is certainly more prohibited in our country and thus less admitted during the survey on the sexual practices. In married, the risks were linked to the absence of condoms use (21.86 %) in situation of the multiple partners (12.6 %), to orogenital (4.2 %) and anogenital intercourses (4.2 %). The existence of a STDs in medical history (17.58 %) did not prevent the obstinacy of sexual risk behaviors. A co-infection with the HIV noted in 5.4 % of the cases is also reported in French sentinel centers with 4.1 % rate (Olivier et al., 2009). The circumcision noticed on 97 % of the patients does not seem to play an absolute protective role against sexually transmitted infections (Wawer et al., 2009). The predominant acute urethritis, mostly associated with urinary signs. (36.5 %) was due for the greater part to *Neisseria gonorrhoeae*, *Trichomonas vaginalis* and *Candida albicans*. The predominance of *Neisseria gonorrhoeae* was also noted in the others West African (Pepin et al., 2001) and Tunisians series (Ben et al., 1999) contrary to the European series. Stroobant in Belgium (Stroobant et al., 1985) had found only 15 % and Massari in France 4.5 % (Massari and Flahault, 2004). There was a strong resistance of *Neisseria gonorrhoeae* to the penicillin G and in the cotrimoxazol (80 % each one). A lesser resistance was noted for the penicillin in the tunisian series of Barguellil (49.1 %) (Barguellil et al., 2006) and French series of Massari (10.4 %) (Massari and Flahault, 2004). The resistance to the penicillin A, noted in 40 %, was slightly lower than that of 50.56 % found in the Tunisian study. The rate of resistance of the erythromycin (20 %) and in the tetracycline (20 %) is lower by far than that reported in the literature (Joly et al., 1996). The sensibility for the ciprofloxacin (86.66 %) was increase, higher by far to that noted in the French western series (Mérens et al., 2009) where she was 17.5 % and Americans (Wang et al., 2007) with 34.7 %. Complications facilitated by the diagnostic delay were such as balanitis, prostatitis and epididymitis. In the chronic forms *Chlamydia trachomatis* was the dominant germ (20.27 %) followed by *Ureaplasma urealyticum* (1.4 %). Although the techniques of detection are successful (bloody antigenemia), its frequency remains lower than what is noted in the French (Janier, 1998) and Belgians studies (Stroobant et al., 1985) where it was 58 % and 40 %. On the other hand the co-infection with *Neisseria gonorrhoeae* and *Chlamydiae trachomatis* was not low (6.75 %); this rate is identical to the one of 6.8 % noted in the Tunisian study (Barguellil et al., 2006). A clinical and bacteriological cure was noted in all patients after 15 days of treatment underlining the efficiency of the antibiotic treatment when it is adapted to germs.

**CONCLUSION**

Our results underline the frequency of the male infectious urethritis despite of all the policies applied against sexually transmitted infections. The gonococcus was the germ the most prevailing in acute urethritis on the other hand the *Chlamydiae trachomatis* in the pattern of chronic urethritis. Besides the variability according to the sensibility and the resistance of germs in antibiotics imposes the systematic request of an antibiogramm.

**REFERENCES**


