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Epidemiological and Clinical Profile of Male Hypofertility in Consultation at the Urology-Andrology of Yalgado Ouedraogo Teaching Hospital (Burkina Faso)

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Abstract

Objective: To determine the epidemiological and clinical characteristics of male hypofertility attending at urology for paternity desire. Materials and methods: Cross-sectional study conducted from January 1st to December 31 2012 at urology department of teaching hospital Yalgado Ouedraogo. We collated men attending for hypofertility. Only subjects living regularly with their partner were retained. Results: The study concerned 95 men. The average age was 36.9 years (range: 23 years and 53 years) and 28.6 years for their wives (range: 19 years and 40 years). Patients resided in urban areas in 90.5% of cases. Gynecologists and general physicians sent respectively 77.9% (N = 74) and 17.9% (N = 17) of cases. The average consultation delay time was 3 years. The average duration of infertility was 5.8 years (Extreme: 1 year and 20 years). Infertility was primary in 68.4% of cases and secondary in 31.6% of cases. 24.2% of patients admitted for history of genitourinary infection. Varicocele was found in 22.1% of cases. The semen analysis showed that 42 men had azoospermia. The semen culture isolated a germ in 19.1% of cases. Serum FSH was high in 47.3% of cases. Conclusion: Male hypofertility affected men of all age. Urologists are the last resort of the male hypo fertile, gynecologists constituting the first contact. Azoospermia is a problem commonly encountered in urological consultation.

Keywords

Male Infertility, Azoospermia, Hypofertility

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1. Introduction

In the world and particularly in Africa, infertility is more than a health problem but a psychosocial problem [1] [2]. Prevalence is very high in sub-Saharan Africa, where one third of the couples would be affected [3]. Males' responsibility for the couple's infertility is in 40% - 50% of cases [3] [4]. Substantial progress has been made in the treatment of male infertility in terms of the rapeutic sinetiological research [5]. This contrasts the prevalence of the disease in steadily increasing [6]. In our practice, very few studies have been devoted to male infertility. The aim of this study was to identify clinical, etiological and epidemiological profile of male infertility at the urology department to improve its management.

2. Patients and Methods

It was a descriptive cross-sectional study covered over a period of 12 months from 1st January to 31 December 2012. The Urology department of teaching Hospital Yalgado Ouedraogo has provided a framework study. It covered topics consultant male desire of fatherhood. Were included in the study all men who viewed desire for paternity and having regular sexual intercourse with or without contraception, the same joint for at least 12 months and leading a regular life with their partners. Consent was obtained from the patient for publication. All selected subjects had at least two spaced at least three months sperm balance sheets consist of a semen analysis, spermocytogram and a semen culture. Semen was collected in the laboratory after an abstinence of 3 to 5 days. Collection after masturbation was preferred to the interrupted whenever possible coitus. Semen analysis was performed according to the WHO standards. Hormonal balance sheet included serum follicle stimulating hormone (FSH) and testosterone. The variables studied were related to:

-Socio-demographic characteristics,

-Clinical,

-Semen analysis, spermocytogram, FSH, testosterone and ultrasonography.

The variables were analyzed in terms of frequency and average. No statistical analysis had done for comparisons among groups. The study has been performed with the approval of a medical ethics committee.

3. Results

During the study period, 3151 patients were admitted at the urology department and 95 male for infertility. The prevalence was 3%. The average age of patients was 36.9 years (SD = 6.8) with extremes of 23 years and 53 years. Almost 74% of patients were less than 41 years (**Table 1**).

The average age of brides was 28.6 years (SD = 4.9) with extremes of 19 years and 40 years. Officials, merchants and farmers accounted respectively 32%, 25% and 15%. Nearly 90.5% of the patients resided in urban areas. They were monogamous in 96.8% (N = 92) of cases and polygamous in 3.2% of cases. Patients were referred by gynecologists in 77.9% (N = 74) of cases and by general physicians in 17.9% (N = 17) of cases. Only 4.2% (N = 4) of patients were received in consultation by themselves. The average consultation delay was 3 years (SD = 2.1) and ranged from 1 year to 10 years (**Figure 1**).

The average duration of infertility was 5.8 years (SD = 3.9) and ranged from 1 year to 20 years. The average frequency of sexual intercourse was 2 to 3 times per week in 98.9% of cases. Infertility was primary in 68.4% of cases and secondary in 31.6% of cases. The history of genitourinary infection were noted in 24.2% (N = 23). Six patients reported, had contracted bilharzia urogenital childhood. Patient histories were reported in **Table 2**.

Two cases of obesity were observed with body mass index of 31.1 kg/m^2 and 37.5 kg/m^2. The review found 7 cases (7.4%) of acute prostatitis. Clinical and ultrasonography examination of the scrotal contents found 21 cases (22.1%) of varicocele, 8 cases of cryptorchidism including 3 bilateral, 4 cases of testicular atrophy and 13 cases of testicular hypotrophy. The semen analysis was performed on 94 patients. In one case there was an anejaculation. The Urine culture in post coital period performed twice did not find any sperm.

The spermatic balance of the whole study population was disrupted. The spermatic profile of our sample was reported in **Figure 2**.

Azoospermia was found in 47.6% (N = 10) of subjects with varicocele. The semen culture isolated a germ in 18 cases (19.1%). It was the staph in 12.7% of cases (N = 12), streptococcus in 2.1% of cases (N = 2) and pseudomonas in 1% of cases (N = 1). Candida albicans was isolated in 3 cases. In these three cases, the collection of sperm occurred in the laboratory by interrupted coitus.

Table 1. Distribution of the patients according age group.

Age group	Number	Percent (%)
20 - 30	15	15.8
31 - 40	55	57.9
41 - 50	22	23.2
51 - 60	3	3.1
Total	95	100

Table 2. Distribution of the patients according background.

Background	Number
Oreillon	15
Urethritis	10
Epididymoorchitis	12
Mumps orchitis	01
Bilharzia	06
Inguinal hernia	04
Hydrocele	05
Uretroplasty	01
Scrotal injury	03

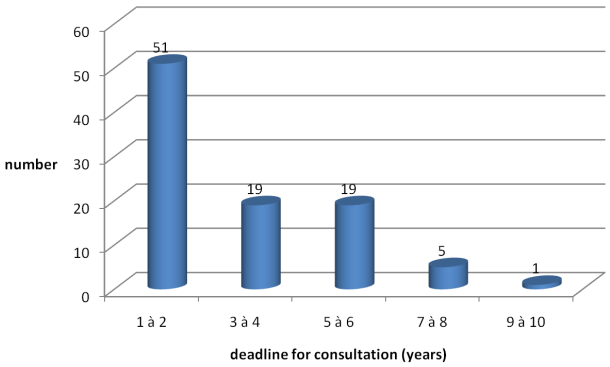

Figure 1. Distribution of the patients according deadline of consultation.

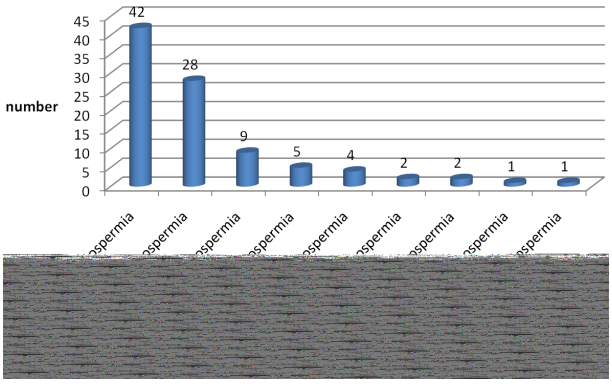

Figure 2. Distribution of the patients according semen abnormalities.

Determination of serum FSH was performed by 57.9% (N = 55) patients. The rate was normal in 52.7% of cases (N = 29) and increased in 47.3% of cases. The elevation of FSH was found in 40.5% (N = 17) of azoospermia. The

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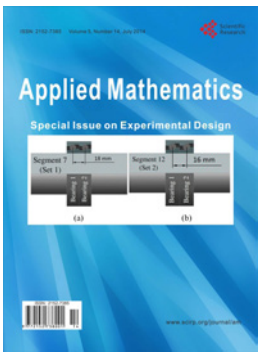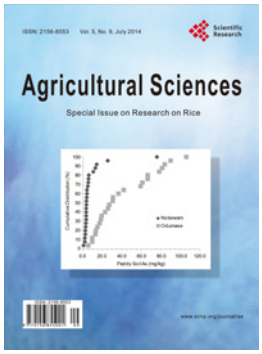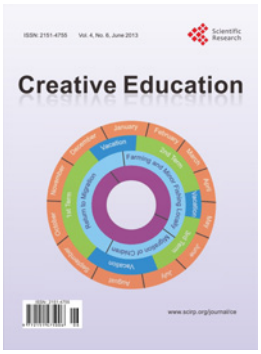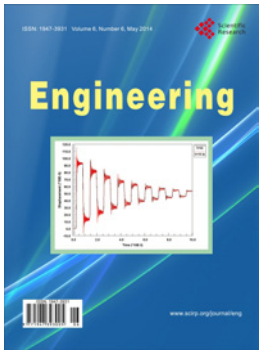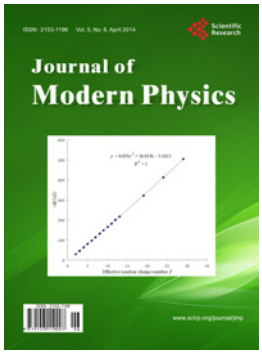
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