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Short communication

Prevalence of Infertility in Women in a Southwestern Nigerian Community

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ABSTRACT

The prevalence and common causes of infertility in women aged between 15 and 55 years was assessed in four hospital centers in Osun State, located in the SouthWestern part of Nigeria. A survey of a consecutive sample of 200 cases of infertility were carried out in four hospital centers with a total of 50 cases of infertility evaluated in each of the centers between 2001 – 2003. The incidence of high infertility in women was established in all the centers; (Obafemi Awolowo University Teaching Hospital, Ile-Ife), 59.4%, (Obafemi Awolowo University Teaching Hospital, Ilesa), 47.7%, (Ladoke Akintola University Teaching Hospital, Oshogbo), 54.8% and (General Hospital, Ikire), 44.2%. 77.5% was recorded for a high rate of secondary Infertility, while Primary Infertility was 22.5%. The commonest causes of infertility in this environment were, the tubal factor, uterine factor, and ovarian factor representing 39.5%, 30% and 13% respectively. The least common cause were cervical factor, Pelvic Infection Disease (PID), and endometriosis which was seen in 3%, 5.5% and 2.5% of the subjects respectively. There was also prevalence of infertility between the ages: 15 – 25 years at the rate of 17%, while 26 – 35 years at the rate of 31.5%. The majority of the cases occurred between the ages of 36 – 45 at the rate of 50.5% and between 46 – 55 years at the rate 1%.

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Key words: Infertility, Pelvic Infection Disease (PID), endometriosis.

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INTRODUCTION

In Africa, children are the fabric of any society, without which no meaningful social and economic progress is considered worthwhile. Infertility is defined as the inability of couples to achieve conception despite frequent, unprotected sexual intercourse for one year duration (Belsey, 1976). Infertility also includes the inability to carry a pregnancy to the delivery of a live baby. WHO in 1991 estimated that between 8 and 12% of couples experienced some form of infertility during their reproductive lives, thus affecting 50 to 80 million worldwide, out of which 20 – 35 million couples in Africa are expected to experience this problem. This can be extrapolated to 3 - 4 million Nigeria couples suffering from infertility (Thomas 1995). However an estimate of infertile couples in Ile-Ife has been put at 19% by Okonofua in 1995, although authors in previous studies in the other parts of Nigeria gave ranging estimates. In Africa, its prevalence is particularly high in sub-sahara African ranging from 20% to 60% (Ogunniyi, 1999). The objectives of the study were to; ascertain the rate of increase of female infertility in Osun State, the causes of infertility in Osun State, the age prevalence of female infertility and the type of infertility that is prevalent in Osun State.

METHOD

Case studies were carried out in four different medical centers to obtain information. These included, Obafemi Awolowo Teaching Hospital,

Ile-Ife (ISH), Obafemi Awolowo Teaching Hospital Ilesa, (WGH), Ladoke Akintola University Teaching Hospital Oshogbo (LAUTECH) and General Hospital Ikire (GHI). A total of 200 case notes were studied. Fifty case notes in each of the centers in the period 2001 – 2003. Data were generated using international classification of diseases and related health problems tenth revision (ICD-10)

Under the code number N97 to retrieve case notes of patients treated for infertility. Information extracted from the case notes were the age of the patients, type of infertility whether primary or secondary, causes and the treatment in the years under review. More so, the outcome of the treatment with regard to the number of patients that became pregnant after treatment was also evaluated. The biostatistics section of each medical center assisted in procuring vital information such as the total number of gynaecology in the centers from 2001 – 2003 and the total number of cases of infertility in the year under review. Coding and indexing section also helped in facilitating the retrieval of the case notes.

RESULTS AND DISCUSSION

The incidence of high infertility in women was established in all the four hospital centers selected for the study. The age range was 15 – 55 years with a mean of 35 years. The mean weight was 62kg with a range of 40 – 74kg.

Table 1:
Causes and % Prevalence of Infertility in Osun State

% frequency of the causes of infertility	% of age	Prevalence of infertility				
		15 – 25 years 17.0)	26 – 35 years(31.5)	36 – 45 years (50.5)	46 – 55 years (1.0)	Total (100.0)
Male factor	13(6.5)	2(15.4)	4(30.8)	7(54.0)	0(0.0)	13(100.2)
Tubal factor	79(39.5)	13(16.5)	25(31.6)	40(50.6)	1(1.3)	79(100.0)
Uterine factor	60(30.0)	10(16.7)	19(31.7)	30(50.0)	1(1.7)	60(100.1)
Cervical factor	6(3.0)	1(16.7)	2(33.3)	3(50.0)	0(0.0)	6(100.0)
Ovarian factor	26(13.0)	5(19.2)	8(30.8)	13(50.0)	0(0.0)	26(100.0)
PID	11(5.5)	1(9.1)	4(36.4)	6(54.5)	0(0.0)	11(100.0)
Endometriosis	5(2.5)	0(0.0)	2(40.0)	3(60.0)	0(0.0)	5(100.0)
Coital	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Total						200(100.0)

Table 1 shows the more common causes of infertility. About 39.5%, 30%, 13% and 6.5% cases of infertility reported were caused by tubal factor, uterine factor, ovarian factor and male factor respectively. Less common causes were pelvic infection disease, 5.5%, cervical factor, 3.0% and endometriosis, 2.5%. Of the 200 cases of infertility evaluated, coital difficulties had 0.0% cause of infertility in the age range. All the common causes of infertility excluding coital difficulties were most pronounced in the age range 36 – 45years. Precisely, 40 (50.6%) tubal factor, 30 (50.0%) uterine factor, 13 (50.0%) ovarian factor, 7 (54.0%) male factor, 6 (54.5%) PID, 3 (50.0%) cervical factor and 3(60.0%) endometriosis were reported in the age range 36 – 45years. Tubal factor 1(1.3%) and uterine factor 1(1.7%) were the only causes in the age range 46 – 55years.

Table 2:
Percentage of types of infertility in four centers

Types of Infertility	ISH	WGH	LAUTECH	GHI	%
Primary	15	10	12	8	22.5
Secondary	35	40	38	42	77.5
Total	50	50	50	50	100

The primary objective of this work was to evaluate the prevalence of infertility in women, the common cause as well as any probable vulnerable age range in women living in Osun State. The outcome of the study has shown that there is a high incidence of infertility in these women with 51.5% of all of gynaecological admission within the year 2001 – 2003 in the four centers being infertility. Obafemi Awolowo University Teaching Hospital, Ile-Ife had infertility as 59.4% of all gynaecological admission. This is an increase when compared to the research done by Okonofua in 1995, in which infertility accounted for only

19% of all gynaecological admission in Ile-Ife. Worthy of note is the fact that all the common causes of infertility excluding coital difficulties were most pronounced in women within the age range of 36 – 45years (50.5%). 22% of infertility occurred between ages 15 – 25years, 26.5% between 26 – 35years and 1% between 46 – 55years in the females under the year reviewed.

The lower limit of 15years was taken because in this environment average female puberty year is 13years and most pregnancy starts around 15years (Ogunniyi, 1999). The upper limit is 46 – 55years because menopause sets averagely in this environment at 46 years.

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