

Management of Female Sterility Due to Tubal Obstruction during Laparoscopic Surgery at the Nianankoro Fomba Hospital in Segou

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Abstract

Original Research Article

This is a prospective cross-sectional study which took place at Segou Hospital from 15 January 2019 to 15 January 2022 on the management of female infertility by tubal obstruction in laparoscopic surgery at Segou Hospital on 14 cases. 42.9% were between 31 and 35 years of age. The mean age was 20.3 years, with extremes ranging from 20 to 41 years. Civil servants were the most represented, with 42.9% in our series, followed by shopkeepers with 21.4%. All our patients were married. 78.6% had primary infertility, 21.4% had secondary infertility. The average duration of infertility was 1.9 years, with extremes of 2 and 10 years. Obstetrical outcome after catheterisation was favourable in four (4) of our patients, i.e. 28.6% had a pregnancy after recanalisation compared with 71.4% without pregnancy.

Conclusion: The advent of laparoscopic surgery in our country has made it possible to improve care for women suffering from female infertility.

Keywords: Female sterility, tubal obstruction, laparoscopic surgery, pregnancy.

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INTRODUCTION

The management of infertile couples is the subject of numerous recommendations, regulations and consensus conferences in a wide variety of fields, most often in the area of medically assisted procreation (MAP). Most of these recommendations are geared towards health safety rules or the quest for quality. They are issued by committees of experts or learned societies on the basis of what is known as "good practice" [1].

Men and women should always be involved in investigations. One in ten couples seek help because they are having difficulty achieving the pregnancy they want [2]. Sterility is the absence of pregnancy after two years of intercourse without precaution.

Of all the couples who meet the medical definition of infertility in this way, around half are in fact hypofertility cases for which pregnancy could be achieved by the action of time alone [2]. Infertility is said to be of female origin when the diagnosis is made following clinical and para-clinical exploration, with the partner having a satisfactory work-up; it occurs with great frequency in many countries: according to the WHO, infertility accounts for 31% of women of childbearing age in developed countries, 37% in Africa, 34% in Asia and 25% in Latin America [3].

Studies carried out in Mali show that around 100,000 women suffer from infertility [4]. HSG is the first technique to explore the fallopian tubes.

The application of HSG angiography techniques has revolutionised the diagnosis and treatment of proximal tubal obstructions.

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The aim of this study is to report on the experience of laparoscopic surgery at the Ségou regional hospital, a first in Mali.

GENERAL OBJECTIVE

To evaluate the contribution of laparoscopic surgery in the diagnosis and management of female infertility due to tubal obstruction at the Ségou Regional Hospital.

Specific objectives:

- Describe the process of laparoscopic surgical management of female infertility
- Identify the advantages and disadvantages of this surgical technique.
- To determine the rates of tubal repermeabilisation obtained at the end of the procedure.
- Describe the post-operative course of tubal surgery

METHODOLOGY

This was a prospective cross-sectional study from 15 January 2019 to January 2022 during successive campaigns (one campaign per year) of laparoscopic surgery at the Ségou Regional Hospital over a 3-year period.

Inclusion Criteria:

All female patients treated in our department for tubal infertility who underwent laparoscopic

surgery, with or without conversion to conventional surgery, were included in the study.

All women for whom medical management of infertility has failed to resolve the problem and referred by a gynaecologist.

Non-inclusion criteria:

Patients operated on using a conventional surgical technique.

DATA SUPPORT

All the patients in our study were collated on the basis of sociodemographic, clinical, therapeutic paraclinical and evolutionary data.

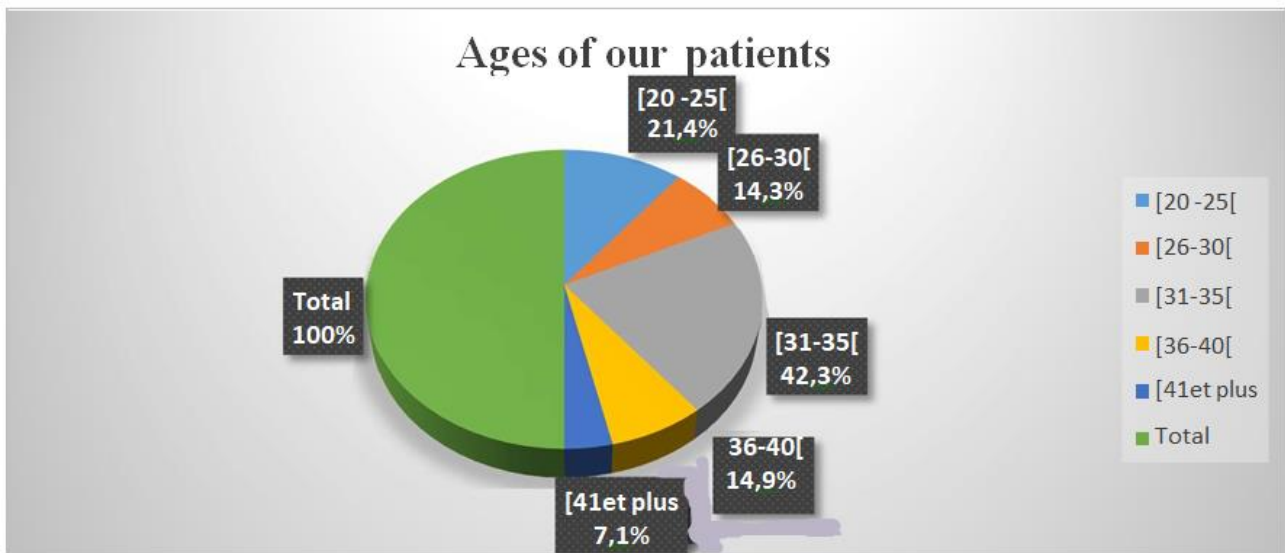
Data was collected mainly from:

- Records of patients operated on
- Registers recording operating reports
- Pre-anaesthetic consultation files
- Anaesthesia sheets
- Individual survey forms

DATA MANAGEMENT

Word processing and tables were produced using Epi info 2.6 software. The data was entered and analysed on Epi info.

RESULTS



Graph 1: Breakdown of patients by age

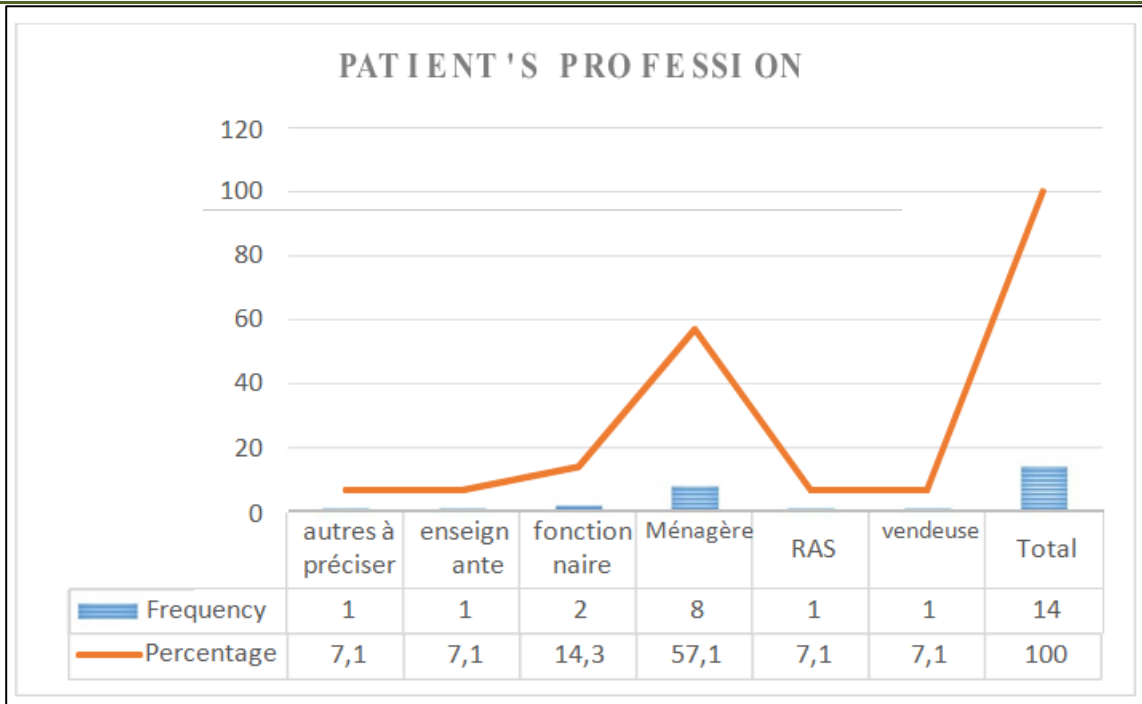


Figure 2 Breakdown of patients by profession

Table I: Distribution of patients according to their husband's profession

Profession	Frequency	Percentage
Official	6	42,9
Retailer	3	21,4
Military	2	14,3
Other	3	21,4
Total	14	100

Table II: Breakdown of patients by age at marriage

AGE OF MARRIAGE	Frequency	Percentage
2 years	6	42,9
3 to 5 years	5	35,7
6to10years	3	21,4
Total	14	100,0

Table III: Breakdown of patients by medical history

MEDICAL HISTORY	Frequency	Percentage
BILHARGIOSE	7	50,0
OTHERS TO BE SPECIFIED	4	28,6
CLEAR	2	14,3
UGD	1	7,1
Total	14	100,0

Table IV: Breakdown of patients according to their history of surgery

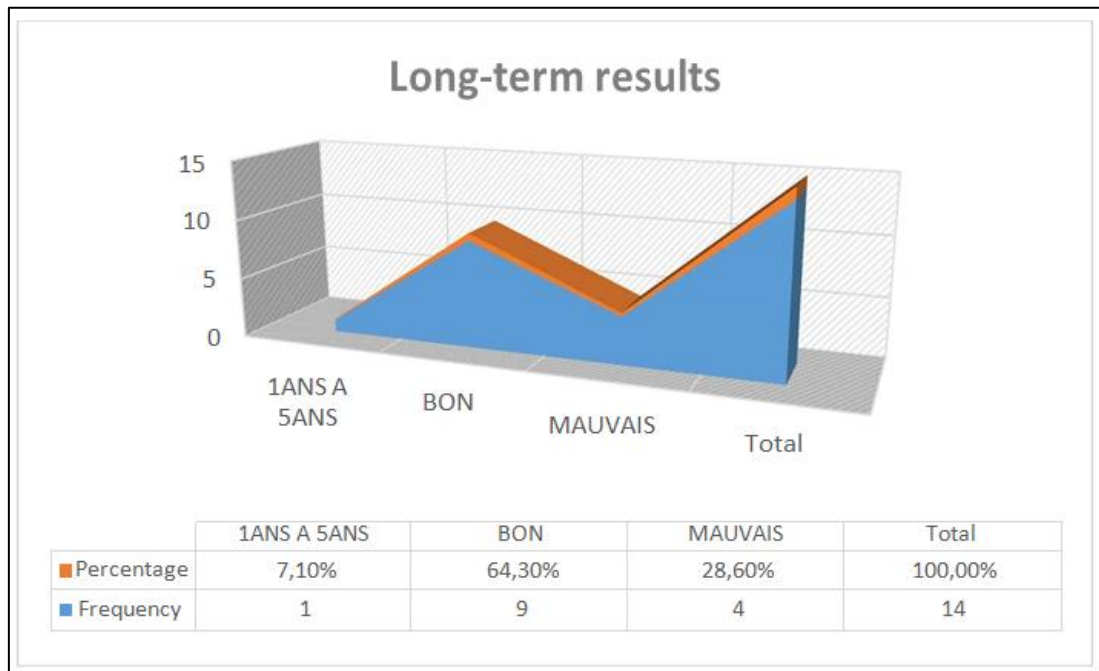
SURGICAL ATCD	Frequency	Percentage
CESARIENNE	1	7,7%
HERNIE	2	15,4%
MYOMECTOMY	1	7,7%
PERITONITE	1	7,7%
CLEAR	8	61,5%
Total	13	100,0%

Table V: Breakdown of patients by aetiology

ETIOLOGY	Frequency	Percentage
Interstitial obstruction	1	7,1
Isthmic and distal obstruction	1	7,1
Tubal obstruction	11	78,6
distal infectious sequelae	1	7,1
Total	14	100,0

Table VI: Breakdown of patients by treatment

TREATMENT	Frequency	Percentage
ADHESIOLYSIS	1	7,1%
TUBAL OBSTRUCTION	13	92,9%
Total	14	100,0%



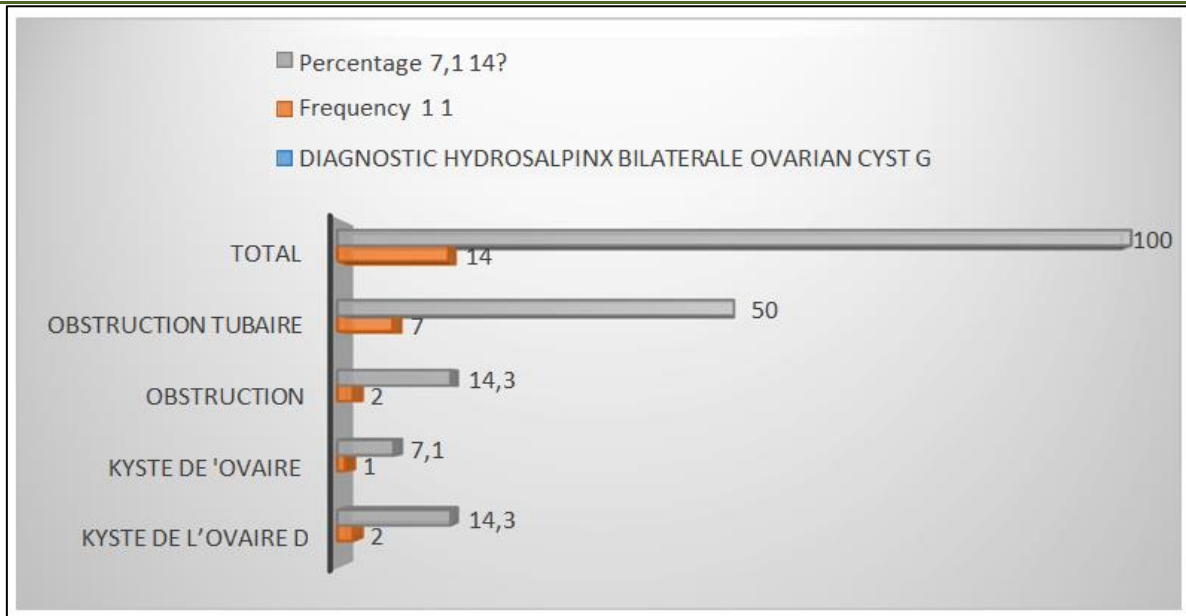
Graph III: Breakdown of patients by long-term outcome

Table VII: Distribution of patients according to type of infertility [7]

Type of infertility	Frequency	Percentage
primary	11	78,6
secondary	03	21,4
Total	14	100

Table VIII: Breakdown of patients by pregnancy

Pregnancy	Frequency	Percentage
NO	11	78,6
YES	3	21,4
Total	14	100,0



Graph 4: Breakdown of patients by diagnosis

COMMENT AND DISCUSSION

The use of patient files precluded any improvement in the quality of data collection. It was therefore not possible to collect all the information on the survey form.

In our series of 14 patients, 42.9% were between 31 and 35 years of age. The mean age was 20.3 years with extremes ranging from 20 to 41 years.

Cheick Oumar b Of 165 patients, 72.7% were between 20 and 35 years of age. The mean age was 33.8 years, with extremes ranging from 20 to 48 years [4].

Sokhna Diop Ba found an average age of 34 in Dakar, with extremes of 28 and 46 [5].

The average age of our patients is lower than that of the other authors, which could be explained by their low social status, which more often than not leads to early marriage after several years of married life.

Civil servants were the most represented at 42.9% in our series, followed by shopkeepers at 21.4%.

All our patients were married, and none of them had undergone a voluntary termination of pregnancy. However, some authors reported at least 1 termination, with an average of 2 and a maximum of 4.

50% of our patients had a history of bilharzia, which could be explained by the fact that the study region is a bilharzia-endemic area.

61.5% of our patients did not have a history of surgery, compared with 7.7% with a history of caesarean section, which may be explained by the smaller size of our sample compared with other authors.

78.6% had primary infertility, 21.4% had secondary infertility. The average duration of infertility was 1.9 years, with extremes of 2 and 10 years.

The average duration is 7.7 years in the BS Diop series [6] and 7 years in the N'Dakena series [7], which is considerably longer than ours.

I. KOURIBA in a study entitled: Contribution à l'étude de la stérilité féminine à Bamako (Contribution to the study of female sterility in Bamako) carried out in 1979 on 300 cases found 166 cases of secondary sterility and 144 cases of primary sterility, which could be explained by the size of the sample in their studies.

50% of our patients had tubal obstruction and respectively. 7.1% distal interstitial and isthmic obstruction and distal infectious sequelae.

The obstetrical evolution after catheterisation was favourable in four (4) of our patients, i.e. 28.6% had a pregnancy after recanalisation compared with 71.4% without pregnancy. It should be noted that among our patients who had a pregnancy, at least one tube was normal and their delivery took place under the best possible conditions.

The complications of recanalisation have not been observed in our series, which consist of bleeding, pelvic pain and often allergic reactions reported by some authors.

CONCLUSION

The advent of laparoscopic surgery in our country has made it possible to improve care for women suffering from female infertility.

This surgical technique is based on the principle of simultaneously establishing or confirming the diagnosis of tubal infertility, assessing the prognosis and carrying out a therapeutic procedure. The results are identical to those obtained by laparotomy.

The laparoscopic surgical technique is the method of choice for us and many other authors because of the advantages it offers.

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