

## REPRODUCTIVE OUTCOME FOLLOWING TREATMENT OF INTRAUTERINE ADHESIONS IN ABUJA, NIGERIA.

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### ABSTRACT

**Context:** Infertility and menstrual abnormalities continue to constitute a significant bulk of gynaecological consultations. Both of these problems are sometimes traced to intrauterine adhesions (IUA) which is preventable in the majority of cases. Endoscopic lysis under direct vision is being introduced into contemporary practice in Nigeria for the treatment of this condition, and is about to commence in this centre.

**Objective:** To evaluate the reproductive outcome following treatment of intrauterine adhesions with the mainly traditional division of adhesions, Lippes loop insertion and exogenous hormone supplementation.

**Study Design, Setting and Subjects:** A retrospective analysis of IUA at the National Hospital Abuja, Nigeria from the period: from 1<sup>st</sup> September 1999 to 31<sup>st</sup> August 2004 was carried out in September 2005 for evaluation of their treatment. One patient was lost to follow up and a total of 71 case records were analyzed.

**Main Outcome Measures:** Reproductive outcome among participants with regard to resumption of normal menstruation and becoming pregnant.

**Results:** The incidence of IUA was 1.73% of new patients. Mean age +/- SD was 29.97 +/- 4.82 years. Patients who were Para 0 to 1 constituted 81.9% of the total. Resumption of normal menstruation occurred in 34 (47.9%) patients. At the time of assessment, 17 women (23.9%) were still amenorrhoeic, 15 women (21.1%) were hypomenorrhoeic while 5 women (7.0%) still had oligomenorrhoea. Eight women (11.3%) had achieved a pregnancy within the study period.

**Conclusion:** The reproductive outcome following treatment of intrauterine adhesions in this centre is not encouraging and needs improvement. Adoption of more successful treatment modalities like hysteroscopic adhesiolysis is advocated.

**Key Words:** Reproductive outcome, Intrauterine adhesions, Abuja

### INTRODUCTION

Intrauterine adhesion (IUA) is also known by the terms 'uterine synechiae', and Asherman's syndrome. This was first described by Fritsch in 1944, although Asherman significantly increased awareness of the condition<sup>1,2</sup>.

The condition is usually caused by trauma to the endometrium, with infection occasionally contributing to the pathogenesis. Pregnant or recently pregnant uteri are more susceptible<sup>1</sup>, and therefore IUA is more common in areas with high incidence of unsafe abortion<sup>1</sup>. A study in Nigeria implicated induced

abortion in 23% of cases<sup>4</sup>. Other implicated factors include postpartum curettage, Caesarean section, myomectomy, pelvic inflammatory disease and repair of ruptured uteri<sup>5</sup>.

IUA presents clinically with menstrual abnormalities usually hypomenorrhoea, oligomenorrhoea or secondary amenorrhoea. Sometimes, it may present with cyclical abdominal pain or with recurrent abortions<sup>3</sup>, and therefore an important cause of reproductive failure.

IUA can be diagnosed through various methods. Hysterosalpingography is the most commonly employed method. Other methods include hysteroscopy (with or without 3 dimensional features), ultrasonography and magnetic resonance imaging<sup>6-9</sup>.

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Treatment of this condition in Nigeria has traditionally been by division of IUA, insertion of an inert intrauterine device such as the Lippes loop and exogenous steroid hormone therapy to regenerate the endometrium<sup>1</sup>. This has been the modality of treatment in Abuja. But clinical observations have shown poor results with this modality of treatment in centres across this country (unpublished observations), in terms of restoration of normal menstruation and reproduction. This has resulted in patients returning for repeated cycles of treatment, sometimes with no improvement or outright discontinuation of treatment. As noted above, IUA is an important cause of reproductive failure. Therefore, improved modalities of treatment of this pathology would have an impact on the reproductive health of our women.

Recently, endoscopy has gained popularity in the country, and some centres now perform hysteroscopic lysis of the adhesions under direct vision.

In view of the proposed introduction of therapeutic endoscopy at National Hospital, Abuja, Nigeria, this paper examines the effectiveness of the traditional treatment method referred to above, employed in this centre in management of IUA; with regard to reproductive outcome using indices of menstrual regulation and occurrence of pregnancy.

## **MATERIALS AND METHODS**

The case folders of patients with IUA who attended the gynaecological out-patients clinic of the National Hospital Abuja during a 5 year period between 1<sup>st</sup> September 1999 to 31<sup>st</sup> August 2004, were retrieved from the medical records department. These cases were followed up till 1<sup>st</sup> September 2005 for evaluation of their treatment. One patient was lost to follow up and a total of 71 case records were analyzed for outcome measures.

Diagnosis was made following a negative progesterone challenge test and a hysterosalpingogram (HSG). Both tests were used concurrently for diagnosis. The progesterone challenge test entailed administration of 5mg of Norethisterone tablets thrice daily for seven days. Absence of withdrawal bleeding within a week of cessation of therapy was taken as a negative test<sup>1</sup>. In some cases, ultrasound examination aided the diagnosis but confirmation was usually with a hysterosalpingogram. Strict anatomical criteria of

IUA, was used and so cases with diagnosis of cervical synechiae were excluded from the study.

Lysis of the adhesions was with the use of a uterine sound, and a Lippes loop was inserted aseptically in theatre (main and minor theatres). In the majority of cases, general anaesthesia was employed. Occasionally, Pethidine 100mg with 10mg of Diazepam or 25mg of Promethazine was given intravenously, instead, particularly in the minor theatre. Following insertion, 1mg of oestradiol valerate was given daily for 21 days with addition of 5mg Norethisterone on the last week of therapy. This was done cyclically for 3 months.

The age and parity of the respondents were analyzed. Also the clinical presentation and subsequent clinical state after treatment were analyzed.

## **RESULTS**

### **Incidence**

During the period under study, there were 72 recorded cases of IUA out of a total of 4,165 new attendances at the gynaecological out-patients clinic. This gives an overall incidence of 1.73%. The yearly incidence of this pathology is shown in Table 1. One patient defaulted from follow-up, leaving 71. Case folders of the 71 patients were retrieved and analysis of outcome measures was based on this figure as the denominator. The duration of symptoms ranged from 4 months to 7 years.

### **Age And Parity**

The mean age of patients with IUA was 29.97 +/- 4.82 years, with a range of 20-43 years. In terms of parity, 81.9% were of low parity (Para 0 or Para 1). This is shown in Table 2

### **Clinical Presentation and Treatment Outcome**

Table 3 shows the clinical presentation of the patients tabulated against the outcome of treatment. Menstrual abnormalities were present in 90.3% of cases. Resumption of normal menstruation occurred in 34 (47.9%) patients.

At the time of assessment, 17 women (23.9%) were still amenorrhoeic, 15 women (21.1%) were hypomenorrhoeic while 5 women (7.0%) still had oligomenorrhoea.

Eight women (11.3%) had achieved a pregnancy within the study period.

**Table 1- Yearly Incidence of IUA at National Hospital, Abuja**

	1/9/99- 31/8/00	1/9/00- 31/8/01	1/9/01- 31/8/02	1/9/02- 31/8/03	1/9/03- 31/8/04
Cases of IUA	6	9	13	19	25
New attendances at Gynaecological Clinic	363	685	902	1017	1198
<b>Rate</b>	<b>1.6</b>	<b>1.3</b>	<b>1.4</b>	<b>1.9</b>	<b>2.1</b>

**Table 2 - Parity Distribution of Patients with IUA**

Parity	No of patients	Percentage
0	43	59.7
1	16	22.2
2	7	9.7
3	3	4.2
4	3	4.2
<b>Total</b>	<b>72</b>	<b>100</b>

**Table 3 - Clinical presentation of IUA and subsequent Reproductive Outcome**

Clinical Presentation	No. of Patients	Normal Menses (%)	Hypomenorrhoea (%)	Amenorrhoea (%)	Oligomenorrhoea (%)	Pregnancy (%)
Secondary amenorrhoea	30	10 (33.3)	3 (10)	17 (56.7)	-	2 (6.7)
Hypomenorrhoea	26	14 (53.8)	12 (46.2)	-	-	3(11.5)
Oligomenorrhoea	8	3(37.5)	-	-	5 (62.5)	1 (12.5)
Cyclical abdominal pain	4	4 (100)	-	-	-	1 (25)
Recurrent abortion	2	2 (100)	-	-	-	1 (50)
Normal menses	1	1 (100)	-	-	-	-

## DISCUSSION

The retrospective nature of this analysis may have affected the retrieval of case-records of patients with IUA, who presented in the early years of establishment of this centre from the yet to be computerized medical records department. This may explain the relatively low numbers witnessed during that period.

Comparison to state increase or decrease in prevalence is hindered by paucity of reports on the prevalence of IUA in the Federal Capital Territory. However, with reference to the study by Ogedengbe et al in Lagos, Nigeria<sup>1</sup>, there is a lower prevalence of the condition in this region of the country. This may reflect the impact of the nationwide training in manual vacuum aspiration (MVA) techniques which began in 1989. On the other hand, the trend of this pathology as shown in Table I appear to be on the increase generally in the last 4 years of the study period. This could be a reflection of increased referral to a tertiary level facility following increased awareness or treatment failure in other centres.

Sixty-five of the patients (90.3%) had abnormal menstruation as Ogedengbe et al<sup>1</sup> found in Lagos. Though IUA is not present in all forms of menstrual abnormalities, the index of suspicion for IUA should be high in women of reproductive ages with menstrual abnormalities particularly those presenting also with infertility. One patient had normal menstruation and the case was only discovered during the course of investigations for infertility.

With reference to the menstrual pattern, less than half (47.9%) had normal menstruation at the end of therapy. Restoration of normal menstruation (defined as at least average flow for a minimum of three days) appeared to be more successful in those with hypomenorrhoea and oligomenorrhoea than patients with secondary amenorrhoea.

The outcome of treatment with 47.9% resuming normal menstruation is not as good as previous studies both locally and abroad, where Ogedengbe et al<sup>1</sup> and Schenker et al<sup>6</sup> reported rates of 74.5% and 84% respectively, using the same management. It has been pointed out that emphasis should be more on reproductive outcome than on the menstrual pattern to judge success of treatment, but pregnancy rates vary widely<sup>1, 10, 11</sup>. As in the Lagos study, majority (81.9%) had a low parity of Para 0-1, illustrating the low reproductive potential and emphasizing the association of IUA with infertility<sup>12</sup>. Patients are more likely to judge success of therapy not only on restoration of normal menstruation, but also on achievement of a pregnancy. Given the social stigma generally associated with infertility in Africa, any measure to improve the success of therapy of IUA

with particular reference to reproduction should be welcomed.

Hysteroscopic lysis under direct vision has become the treatment of choice giving the best results, including reproductive capacity<sup>1</sup>. The better results with hypomenorrhoea and oligomenorrhoea is further supported by observations at hysteroscopic lysis suggesting that the outcome is dependent on the location and severity of the adhesions<sup>1,13,14</sup>. It is likely the patient lost to follow-up was unsatisfied with the results of the current treatment regime being practiced and discontinued consultation.

## CONCLUSION

The reproductive outcome following treatment of intrauterine adhesions with the traditional method is not encouraging and needs improvement. Adoption of more successful treatment modalities like hysteroscopic adhesiolysis is advocated.

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