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Aetiology, Clinical Features and Treatment Outcome of Intrauterine Adhesion in Ilorin, Central Nigeria

Étiologie, Clinical Features and Treatment Outcome of Intrauterine adhérence dans Ilorin, Nigeria centrale

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ABSTRACT

BACKGROUND: **Intrauterine adhesion is a cause of menstrual disorder and reproductive failure. It could be a long term sequelae of unsafe abortion which is a common reproductive health problem in developing countries.**

OBJECTIVE: **To determine the predisposing factors, mode of presentation and outcome of management of intrauterine adhesion in University of Ilorin Teaching Hospital.**

METHODS: **The record of patients with intrauterine adhesion newly diagnosed and managed in the Hospital over a five-year period was analyzed for their age, parity, predisposing factors, clinical presentation, methods of diagnosis and treatment outcome.**

RESULTS: **A total of 136 patients were newly diagnosed and managed for intrauterine adhesion during the period under review. This constituted 1.3% of new gynaecological patients and 4.0% of consultations for infertility. Endometrial curettage on account of pregnancy complications accounted for 92 (67.6%) patients, and this was mostly for induced abortion. Hypomenorrhoea and secondary amenorrhoea were the commonest presenting menstrual abnormalities occurring in 48 (35.3%) and 53 (39.0%) patients respectively. Normal menstruation resumed in 99 (72.8%) patients following treatment.**

CONCLUSION: **The incidence of intrauterine adhesion among gynaecological patients in this study is lower than those from previous reviews elsewhere in the country. However, dilatation and curettage for induced abortion still remains the commonest cause in our center. Measures to prevent unwanted pregnancy are needed and there should be increased advocacy for the use of manual vacuum aspiration for uterine evacuation procedures. WAJM 2007; 26(4): 298–301.**

Keywords: ***Asherman's Syndrome, Intrauterine adhesion, aetiology, clinical features, treatment***

ABSTRACT

CONTEXTE: *Intrauterine adhérence est une cause de troubles menstruels et de la reproduction échec. Elle pourrait être à long terme les séquelles de l'avortement à risque qui est un problème de santé de la reproduction dans les pays en développement.*

OBJECTIF: *Déterminer les facteurs de prédisposition, le mode de présentation et les résultats de la gestion de l'adhérence en intra Université d'Ilorin Teaching Hospital.*

MÉTHODES: *Le record de patients ayant reçu un diagnostic récent intra adhérence et gérés à l'hôpital pendant une période de cinq ans ont été analysées par rapport à leur âge, la parité, les facteurs de prédisposition, de la présentation clinique, les méthodes de diagnostic et de traitement des résultats.*

RÉSULTATS: *Un total de 136 patients ont été nouvellement diagnostiqués et gérés de manière intra-adhésion pendant la période considérée. Cela représente 1,3% des nouveaux patients gynécologiques et 4,0% des consultations pour infertilité. Endometrial curetage en raison de complications de la grossesse représentaient 92 (67,6%) patients, et ce fut le plus souvent pour un avortement provoqué. Hypomenorrhoea et secondaires les plus fréquents étaient aménorrhée menstruel présentant des anomalies se produisent dans 48 (35,3%) et 53 (39,0%) des patients, respectivement. Menstruation normale reprend dans 99 (72,8%) patients après traitement.*

CONCLUSION: *L'incidence de l'adhérence intra gynécologiques chez les patients de cette étude sont inférieurs à ceux des précédents commentaires dans le reste du pays. Toutefois, la dilatation et le curetage de l'avortement provoqué demeure la principale cause de notre centre. Mesures visant à empêcher les grossesses non désirées sont nécessaires et il faudrait accroître la sensibilisation pour l'utilisation de l'aspiration manuelle pour les procédures d'évacuation utérine.* ***WAJM 2007; 26(4): 298–301.***

Mots clés: *syndrome d'Asherman, intra adhérence, étiologie, les caractéristiques cliniques, le traitement.*

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INTRODUCTION

Since the publication titled 'amenorrhoea traumatica' by Asherman in 1948, this syndrome has been considered a well defined clinical entity.[1] It has been variously called Asherman's syndrome, synechiae uteri or simply intrauterine adhesion.[2,3,4] It is typically manifested by the formation of fibrous adhesions in the uterine cavity, which becomes partially or completely obliterated preventing the normal growth of the endometrium.[4]

The cause of intrauterine adhesion is usually endometrial curettage traumatizing the basalis layer of the endometrium particularly in a pregnant or recently pregnant uterus.[4] The curettage may be for induced, incomplete and missed abortion or for removal of retained placenta remnants causing postpartum haemorrhage.[2,3,4] It is therefore more common in areas with a high incidence of unsafe abortion like Nigeria where over 600,000 induced abortions are performed annually with 60% by untrained providers.[5] Study of the condition in Nigeria showed between 20-40% to be associated with induced abortion.[2,3,6] Other predisposing factors include caesarean section, myomectomy, manual removal of, severe postpartum and tuberculous endometritis.[2,3,4,6]

Intrauterine adhesion is a common cause of menstrual abnormality and repro-ductive failure. The presentation is that of hypomenorrhoea, oligo-menorrhoea, secondary amenorrhoea and dysmenorrhoea.[2,3,6,7] It is increasingly common among women presenting with infertility in many parts of Africa.[2,3,8] Pregnancy, when achieved, may be complicated by recurrent abortion, premature labour, intrauterine foetal death, placenta praevia and accrete.[4]

There is a reported universal increase in the incidence of intrauterine adhesion, but mainly from curettage in the puerperium for postpartum haemorrhage.[4] However, a larger and increasing proportion is due to curettage for induced and incomplete abortions in Nigeria.[2,3,6] This is despite the ongoing advocacy for the use of manual vacuum aspiration for uterine evacuation[9]. Uterine evacuation is one of the most commonly performed procedures in our center and procured abortion with its numerous complications is a particular problem in our locality.[10,11] Reviews in our center have dwelt on the acute and life threatening complications of unsafe abortion and its associated mortality[10,11]. None, to the best of our knowledge, has looked into the long term problems like intrauterine adhesion which constitute a handicap in the menstrual and reproductive functions of these women. In the light of this, this study reviewed the predisposing factors, pattern of presentation and the outcome of treatment of intrauterine adhesion in University of Ilorin Teaching Hospital.

MATERIALS AND METHODS

The records of patients with intrauterine adhesion who were newly diagnosed and managed in the department of obstetrics and gynaecology of University of Ilorin Teaching Hospital between 1st January 2000 and 31st December 2004 were reviewed. The information obtained for analysis included age, parity, predisposing factors, clinical presentation, method of diagnosis and treatment outcome.

Diagnosis in all cases was by clinical finding of characteristic menstrual abnormalities and hysterosalpingo-graphic demonstration of irregular, narrowed cervical canal and endometrial cavity. Treatment was by blind adhesiolysis using a uterine sound and insertion of a Lippes loop intrauterine device. This was followed by administration of monthly estrogen and progestogen administration to stimulate endometrial development and induce withdrawal bleeding. This was continued for three cycles.

The data obtained was analyzed using the SPSS package version 9.0. Frequency distributions were generated for all categorical variables. Means and standard deviation were determined for quantitative variables. The chi-square test was applied for the comparison of proportions. Statistical significance was said to be achieved where the p-value = 0.05

RESULTS

During the period under review, there were a total of 10,575 new gynaecological patients managed at the University of Ilorin Teaching Hospital. Amongst these, 136 patients were newly diagnosed and managed for intrauterine adhesion. Thus, patients with intrauterine adhesion constituted 1.3% of total gynaecological patients. The age and parity distribution of the patients is as shown in Table 1. The age ranged from 22 years to 44 years with a mean of 31 ± 2.8 years. Majority, 103 (75.8%) of the women were aged 25-34 years and 90 (76.2%) were either nulliparous or primiparous.

Table 2 shows the aetiological factors associated with intrauterine adhesions. Endometrial curettage on account of pregnancy complication was the aetiological factor in 92 (67.6%) patients. Curettage was for induced abortion in 53 (39.0%) patients while it was for incomplete abortion in 23 (16.9%) women. Ten (7.4%) women had curettage in the puerperium for postpartum haemorrhage.

Table 1: Age and Parity Distribution of Patients with Intrauterine Adhesion

Variable	Number (%) Patients
Age group (Years)	
20–24	6 (4.4)
25–29	45 (33.1)
30–34	58 (42.0)
35–39	23 (16.9)
40–44	4 (2.9)
Parity	
0	47 (34.6)
1	43 (31.6)
2	29 (21.3)
3	10 (7.4)
≥4	7 (5.1)
Total	**136 (100)**

Table2: Aetiological Factors in Patients with Intrauterine Adhesion

Aetiological Factor	Number (%) Patients
Endometrial curettage due to:	
Induced abortion	53(39.0)
Incomplete abortion	23 (16.9)
Missed abortion	6 (4.4)
Postpartum haemorrhage	10 (7.4)
Diagnostic curettage	1 (0.7)
Caesarean section	27 (19.8)
Myomectomy	7 (5.2)
Pelvic inflammatory diseases	1 (0.7)
Unexplained	8 (5.9)
Total	**136 (100)**

Table 3: Menstrual Abnormality and Outcome of Treatment in Patients with Intrauterine Adhesion

Menstrual pattern	Number (%)	Menstrual Pattern after treatment, N(%)			
		Normal	Oligomenorrhoea	Hypomenorrhoea	Secondary Amenorrhoea(%)
Hypomenorrhoea	48(35.3)	42(87.5)	-	5(10.4)	-
Oligomenorrhoea	25(18.4)	18(72.0)	2(4.4)	-	-
Amenorrhoea	53(39.0)	29(54.7)	7(13.2)	10(18.9)	7(13.2)
Normal	10(7.3)	10(100)	-	-	-
Total	**136(100)**	**99 (72.8)**	**9 (6.6)**	**15 (11.0)**	**7 (5.1)**

Caesarean section was the aetiological factor in 27 (19.8%) cases. Pelvic inflammatory disease and diagnostic curettage were the implicated factor in one woman each.

Table 3 illustrates the presenting menstrual irregularities and outcome of treatment. Duration of symptoms varied between four months and six years. Aside from menstrual abnormality, 98 (72.1%) patients presented because of inability to get pregnant which represented 4.0% of consultations for infertility in the same period. One hundred and twenty six (92.6%) patients presented with menstrual abnormalities. Secondary amenorrhoea and hypomenorrhoea were the commonest presenting menstrual abnormalities occurring in 53 (39.0%) and 48 (35.3%) patients respectively. Ten women (7.4%) had normal menstrual pattern despite radiological evidence of intrauterine adhesion. Analysis of the outcome of treatment shows that 99 (72.8%) patients achieved normal menstruation. Normal menstrual pattern was achieved in 87.5% of women who originally presented with hypomenorrhoea, 72.0% in those with oligomenorrhoea while 54.7% of those with secondary amenorrhoea resumed normal menstruation. The proportions of women with hypomenorrhoea and oligomenorrhoea who achieved normal menstruation after treatment were significantly higher than the respective proportion among women who originally had secondary amenorrhoea ($\chi^2 = 24.9$, p-value = 0.000). Six women were lost to follow up.

DISCUSSION

The incidence of intrauterine adhesion among gynaecological condition in this study is 1.3 %. This is lower than the incidence of 6.7% reported by Otubu et al in Jos in 1993[2] and the incidence of 4.3% reported by Ogedengbe et al in Lagos (1999).[6] In addition the incidence of intrauterine adhesions among all patients presenting with infertility of 4% in this study is lower than the incidence of 15-20% reported by some authors.[2,3,8] Significantly, the previous studies were conducted in the tail end of the last century when training in the use of the manual vacuum aspiration for uterine evacuation was newly introduced. This procedure is known to be associated with fewer complications than the traditional dilatation and curettage. It will therefore be a welcome development if its desired effect in reducing the incidence of Asherman's syndrome is already been realized. Similar follow up studies in other parts of Nigeria will be required to verify this positive sign.

However endometrial curettage still accounted for majority (67.6%) of the cases. Curettage was largely on account of induced abortion which is similar to those in previous studies in Nigeria.[2,3,6] In a series, the proportion due to curettage on account of induced abortion was found to be increasing.[6] This is however not the case worldwide where more cases are found to be due to curettage in the puerperium.[4] This disparity may be due to high incidence of induced abortion in Nigeria, most of which are performed by untrained providers.[5] Viewed on the background of a gradual replacement of the traditional sharp curettage by suction evacuation of the uterus following the introduction of manual vacuum aspiration, other possible complications of uterine evacuation not completely prevented by manual vacuum evacuation may emerge as prime factors in the aetiology of many cases.

Caesarean section accounted for 19.8% of cases. This is higher than 2.3% found in a recent study[6] and more than 2% quoted in the literature.[4] Most of the caesarean sections were performed for prolonged obstructed labour which is a common obstetric problem in our environment and more often complicated by postpartum endometritis as was the case in many of the patients in this series. Also one patient developed intrauterine adhesions following pelvic inflammatory disease. These findings and similar ones by other authors suggests a possible role for severe endometritis in the etiology of intrauterine adhesion.[2,6] It is also possible that post abortal endometritis rather than direct trauma through sharp curettage of the endometrium will play a prominent role in the post manual vacuum aspiration introduction era.

Most patients (92.7%) presented with menstrual abnormality. However a small percentage (7.3%) had normal menstruation. The later group of women presented on account of infertility and they were discovered to have intrauterine adhesion on hysterosalpingography. Same findings have been reported from other authors.[6,8] A larger proportion of such women were found when hysteroscopy was done.[8] This adds to the volume of evidences supporting routine hysterosalpingography in the investigation of women with infertility irrespective of their menstrual and reproductive history.

The outcome of treatment with 72.8% of cases resuming normal menstruation

compared well with workers using the same management.[6,12] The better results with hypomenorrhoea and oligomenorrhoea is supported by observations at hysteroscopic lysis suggesting that the outcome is dependent on the severity of the adhesions[13,14]. The outcome in our environment can still be improved with hysteroscopic lysis which has been shown to give better outcome in terms of restoration of menses and reproductive performance.[13-15]

In conclusion, intrauterine adhesion is still an important cause of menstrual abnormality and infertility in our center. Endometrial curettage on account of induced and incomplete abortion is the commonest cause. The role of infection in its aetiology needs to be further evaluated. Prevention should aim at reducing the incidence of unwanted pregnancy, unsafe abortion and puerperal sepsis. There is the need for continued implementation of the nationwide training in manual vacuum aspiration. Favourable government policy that will enable provision of adequate diagnostic and therapeutic equipment is also necessary to improve therapeutic outcome of the condition.

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