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Hysteroscopic Adhesiolysis for Intra-Uterine Adhesions: Implications and Limitations in a Low Resource Setting

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Authors' contributions

This work was carried out in collaboration between both authors. Author OKE conceptualized the article. Both authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Background: The advent of hysteroscopy has radically changed the treatment modality for intra-uterine adhesion (IUA) which is a challenge for women of reproductive age, causing menstrual abnormalities and infertility and occurring in about 1.5% of the general population. Hysteroscopic techniques are now considered the gold standard for the treatment of IUA but it is unfortunately neither readily accessible nor affordable in resource poor settings.
Aim: To present the efficacy of this treatment modality and advocate for its popularization in resource poor settings.
Case Report: A 38-year-old housewife, $P2^{+1}$(2 alive, 2 previous caesarean sections), presented with features of IUA and 6 months amenorrhoea following dilatation and curettage (D&C) for a blighted ovum. She had hysteroscopic adhesiolysis, Foleys catheter insertion and hormonal therapy. Resumption of menstruation occurred within one month of the procedure and post operative investigation results suggests a capacious uterine cavity.
Conclusion: Hysteroscopy is the way forward in the treatment of IUAs instead of the traditional method of blind D&C but advocacy is needed to bring it within the reach of women in resource poor settings.

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Keywords: Hysteroscopy; adhesiolysis; intrauterine adhesions; resource poor.

1. INTRODUCTION

Amenorrhoea is the absence of monthly periods. It is arguably the most worrisome menstrual abnormality for women with future reproductive wishes. Causes of secondary amenorrhoea include pregnancy, menopause, medications and abnormalities of the female genital tract. Often associated with amenorrhoea, other menstrual abnormalities, infertility and pregnancy complications such as miscarriages and adherent placenta is the formation of bands of fibrous tissues in the uterine cavity also known as Intra-Uterine Adhesions (IUA) or Intra-uterine synechiae. The term Asherman syndrome is also used to describe this condition.

Successful reproduction remains a cardinal expectation of women in their reproductive age and it is more so in the developing world. The exact prevalence rate of IUAs is difficult to ascertain as a large proportion are asymptomatic but it is estimated at 1.5% in the general population with adhesions noted in 21.1% and 16.2% after 1st and 2nd trimester terminations of pregnancy respectively by D&C [1]. Of the 176 hysteroscopies performed at Nigeria's National Hospital over a 3 year period, 75% were for infertility and the commonest single occurring pathology found (54.5%) was the intrauterine adhesions with intrauterine adhesiolysis accounting for most (57.8%) of the 147 hysteroscopic operative procedures performed [2].

Traditional treatment of IUAs is by D&C with or without mechanical barriers and hormonal support. The advent of hysteroscopy has radically changed the treatment modality for IUA. Hysteroscopic techniques are now considered the gold standard for the treatment of IUA. They offer the benefit of direct visualization of the adhesion bands before lysis avoiding the traditional treatment modality of blind D&C which may even worsen the pathology to be treated.

The technique is unfortunately not readily available in resource poor settings like ours due largely to unavailability of the required skills and/or equipments as well as unafordability of the procedure where available due to the high cost and the need for out of pocket payment for health services in our environment especially as most of the available endoscopic equipment are in privately owned medical facilities. We present a case successfully managed in our centre's newly acquired endoscopy unit by this procedure that has revolutionized the management of IUA.

2. CASE REPORT

A 38-year-old housewife, $P2^{+1}$(2 alive, 2 previous caesarean sections came to our facility on 20/10/2023 following a referral for amenorrhoea of 6 months duration.

She was in her normal state of health until 6 months prior to presentation when she had a D&C following an ultrasound diagnosis of a blighted ovum at the referral centre. She had presented to the referral centre with a history of spotting per vagina after 5 weeks amenorrhoea and a positive pregnancy test.

Following D&C, she became amenorrhoeic for 6 months necessitating her representation at the referral centre from where she was referred to our centre. A pelvic ultrasound scan done at presentation revealed a normal sized uterus with no gestational changes and an absent endometrial plate. Hysterography was unsuccessful due to cervical stenosis. A diagnosis of intra-uterine adhesions was made based on the history and investigation results. She was counselled on the diagnosis and the need for adhesiolysis which she consented to.

She subsequently had hysteroscopic adhesiolysis, intrauterine Foleys catheter insertion and hormonal therapy. Intra-operative findings were a stenosed cervical canal and adhesion bands at the lower half of the uterine cavity. Hysteroscopy was done with normal saline as distension media delivered via an irrigation pump at 100mmHg with cold scissors and hydro-dissection used to release the adhesions. Intra-uterine size 6 paediatric Foleys catheter was inserted under direct vision and inflated with 3mls of sterile water. Hormonal therapy was with oestrogen (2mg daily) for 21 days after the procedure followed by progesterone (10mg) for 10 days starting from day 14 after the procedure and to be repeated monthly over 3 months with a 4 day pill free period in between courses. Prophylactic broad spectrum antibiotics where prescribed for 5 days and the patient counselled on perineal hygiene. Lower abdominal fullness was noted in the immediate post operative period. Pelvic ultrasonography revealed a well positioned

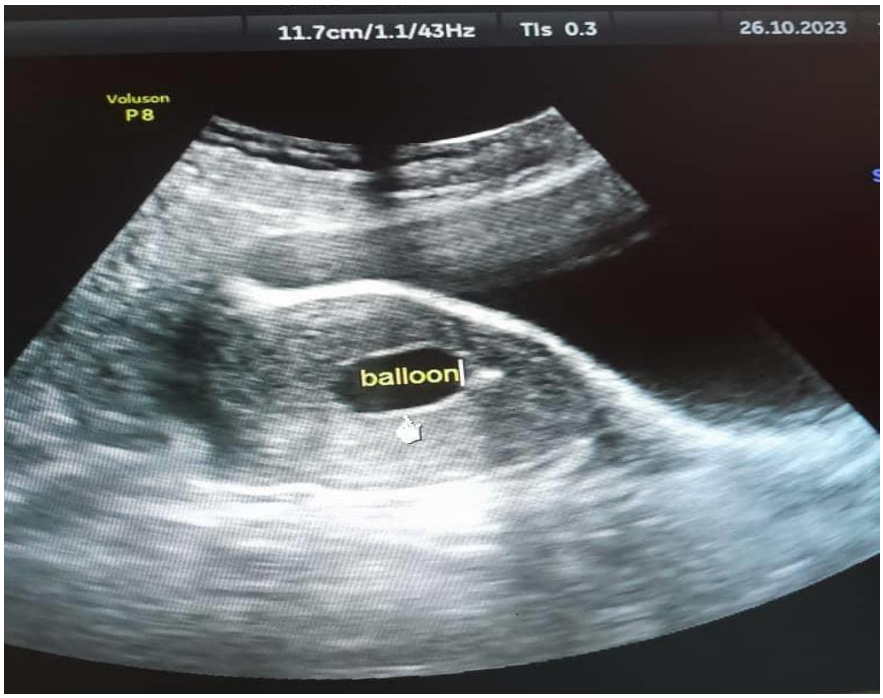

Fig. 1. Ultrasonography of uterus

intrauterine Foleys catheter with mild fluid collection in the Pouch of Douglas suggesting patent fallopian tubes. She was given an appointment for review in 10 days.

The intra-uterine Foleys catheter was removed after 10 days and she was given monthly appointments. She resumed her normal menstruation within one month of the procedure and her menstrual cycle has been monthly since then.

Post operative pelvic ultrasonography done 2 months after the adhesiolysis revealed a normal sized non- gravid uterus. The endometrial lining was regular in outline. The endometrial cavity was empty and intact. A follow-up hysterography done at the same time showed a normal capacity uterine cavity. There was bilateral tubal patency. She was subsequently discharged from the gynaecology clinic.

3. DISCUSSION

There is hardly any justification for the continued use of the traditional method of D&C in the management of intra-uterine adhesions as still happens in most of our centres including some tertiary centres in our environment.

Hysteroscopy gives the advantage of direct visualization/classification of the pathology before treatment. Flimsy adhesions can be lysed by the distension media alone, while the dense adhesions often require cutting or excision with blunt, sharp, electrocautery, or laser techniques [3]. This was the case with this Mrs EH who had a combination of hydro-dissection and cold scissors dissection with good results. In the absence of irrigation pumps, gravity/compression bags can be used for fluid delivery. Fluid regulation is critical to avoid the catastrophic fluid/electrolyte imbalance. Energy sources are preferably avoided especially in women of reproductive age.

Barrier methods for preventing recurrence of IUAs has largely shifted for Intra-Uterine Contraceptive Devices (IUCD) to balloons, stents and gels. Lippes loop IUCD which was preferable because of its large surface area is hardly available and copper IUCD's are used instead. Paediatrics Foleys catheter, which was used for this patient, has shown superiority over the IUCD in terms of improvement in menstruation and the need for repeat adhesiolysis [4]. Additionally, the Foleys catheter is readily available and can be inserted under direct vision as was done for our patient ensuring proper placement and inflation to just the required size to fill the cavity thereby minimizing post-operative pain. Like any other foreign body in the uterus such as IUCD [5], the Foleys catheter carries the slight risk of ascending infection and the patient should be

counselled on perineal hygiene and prophylactic antibiotic prescribed as was done for our patient. Sometimes a repeat hysteroscopy may be necessary for difficult adhesions or for cases of recurrent IUAs.

Complications of hysteroscopy are rare and generally higher following operative procedures (0.24%– 4.4%) [6]. Complications include uterine perforation with or without visceral injuries, cervical injuries, haemorrhage, fluid/electrolyte imbalance, embolism and anaesthetic complications [6,7]. Complications are rare with adequately trained manpower [6,8] None was recorded in our patient. Failure of hysteroscopy may result from cervical stenosis which our patient had, inadequate distension of the uterine cavity, bleeding, or excessive mucus secretion [2]. Surgical success is said to be achieved with the restoration of a normal appearing uterine cavity which occurs in 57 – 98% of cases [7]. This was the case in our patient. The severity of the disease may impact the complication and/or success rate. It can be classified as stage I, II or III based on the American Fertility Society (AFS) classification which is an objective and most widely accepted classification amongst the various methods of classification of the condition [7]. It assesses the extent of cavity involvement, type of adhesions and the menstrual pattern. Our patient had stage II (moderate) disease. Procedures for improving regeneration of the endometrial lining especially in severe disease include the injection of autologous Platelet Rich Plasma (PRP) which has shown some benefits in terms of endometrial thickness, endometrial vascularity, restoration of endometrial function and pregnancy rates [9,10].

4. CONCLUSION

Hysteroscopy is a very effective method of treating IUAs and is currently the gold standard. In a resource poor setting like ours, the procedure is still not offered by many public health facilities including some tertiary centres due to the absence of the needed skills, unavailability of the required equipment or both. In centres where the service is available (both public & private), the cost is beyond the reach of the average patient who commonly has to pay out of pocket for healthcare services.

The intervention of government to make this service readily available (through trainings/ equipment acquisition) in all public secondary/tertiary health facilities so as to make it accessible to the low income bracket should be prioritized. Exemption from import taxes of these equipment will lead to affordability even in private facilities. This will reduce the already high cost burden of infertility [11].

CONSENT

As per international standards or university standards, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Hooker A, Fraenk D, Brolmann H, Huirne J. Prevalence of Intrauterine Adhesions after termination of pregnancy: A systematic review. Eur J Contracept Reprod Health Care 2016;21(4):329-35.
2. Usman SF, Efetie ER, Ibraheem RS, Katagum D, Ladipo OP. The scope of hysteroscopy in the diagnosis and management of intrauterine conditions at a public fertility center in north-central Nigeria: A retrospective study. Afr J Reprod Gynaecol Endosc. 2022;7:11-6.
3. Okohue JE. The role of assisted operative hysteroscopy in ashermans management. In: Manchanda R(ed). Intra uterine adhesions: Diagnostic and therapeutic insight. Singapore: Springer Nature Singapore Pte. 2021;123-135.
4. Orhue AAE, Aziken ME, Eigbefoh JO. A comparison of two adjunctive treatments for intrauterine adhesions following lysis. Int J Gynecol Obstet. 2003;82:49-56.
5. Hegazy RA, Hegazy AA, Etman WM. Tubo-ovarian actinomycosis in perimenopausal woman with neglected intrauterine device: A case report and review of literature. J Medical Case Report. 2021;3(4):1-5.
6. Pacheco LA, Carugno J, Timmons D, Sanchez MG. Complications and fertility potential following adhesiolysis. In: Manchanda R(ed). Intra uterine adhesions: Diagnostic and therapeutic insight.

Singapore: Springer Nature Singapore Pte. 2021;173-184
7. Kalu E, Nzeribe E, Nzurumike C. Complications associated with hysteroscopic surgery. In: J.E. Okohue et al. (eds). Gynaecological Endoscopic Surgery. Switzerland: Springer Nature Switzerland AG. 2022;327-337.
8. Hadisaputra W, Hani CA, Putri NA. Patient safety in hysteroscopic procedure. Gynecol Minim Invasive Ther. 2022;11:145-9.
9. Dogra Y, Singh N, Vanamail P. Autologous platelet-rich plasma optimizes endometrial thickness and pregnancy outcomes in women with refractory thin endometrium of varied aetiology during fresh and frozen-thawed embryo transfer cycles. JBRA Assist Reprod. 2022;26(1):13-21.
10. Puente Gonzalo E, Alonso Pacheco L, Vega Jimenez A, Vitale SG, Raffone A, Lagana AS. Intrauterine infusion of platelet-rich plasma for severe Asherman syndrome: A cutting-edge approach. Updates Surg. 2021;73(6):2355-2362.
11. Owhonda G, Eli S, Okagua KE, Ocheche U, Dan-Jumbo A, Nonye-Enyindah E, et al. Perception prevalence of the relationship between PID and infertility amongst women of reproductive age: A Nigerian Study. International Journal of Life Science Research Archive 2023;04(01): 138-142.

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