

# Spontaneously Expelled Lippes Loop IUD After 40 Years of Use: A Case Report and Review of the Literature

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**Objective:** Intrauterine devices are a widely used method of contraception worldwide. These devices are reliable, cost-effective, long-acting, and reversible. Their placement in the uterus is usually simple and safe. Forgotten IUDs carry some complications and can adversely affect the health of women. Therefore, appropriate counseling during insertion and timely removal is crucial.

**Case Summary:** We present the case of retained Lippes loop IUD for 40 years in a 75-year-old postmenopausal patient from Western Ethiopia. The patient presented to the hospital with postmenopausal pelvic pain. Speculum exam showed part of loop at external cervical os. The loop was easily removed with spongy forceps. The patient was discharged with analgesia and doxycycline twice a day for 3 days.

**Conclusion:** In the absence of embedment of an IUD into the uterine wall or uterine perforation, spontaneous expulsion of an IUD after prolonged use is possible.

**Keywords:** Lippes loop, IUD, retained, contraception, pelvic pain, Western Ethiopia

## Introduction

The first Lippes loop intrauterine device (IUD) was introduced in 1962. It is a plastic double “S” loop, a trapezoid-shaped IUD that closely fits around the contours of the uterine cavity, reducing the incidence of expulsion. This IUD was commonly used from the 1960s to the 1980s.<sup>1,2</sup> Though it is safe to use, Lippes Loop IUD is no longer in use after Ortho Pharmaceutical Corporation stopped marketing this device citing economic reasons.<sup>2</sup>

Lippes loop IUDs were intended for long-term use until menopause due to their implant nature. For this reason, they are often retained for years. Many patients present well into menopause still bearing a Lippes Loop, either deliberately or forgotten.<sup>3</sup> However different pieces of literature have documented side effects and complications following the long-term use of IUDs.<sup>4</sup>

Retained IUDs beyond the required time are related to numerous complications.<sup>5–10</sup> However, there are cases with no symptoms though kept for many years.<sup>1,5</sup> There are controversies about whether to remove or conservatively managed dislocated or retained IUDs without complaints.<sup>5,7</sup>

Another complication of IUD is expulsion immediately after insertion. Rates of expulsion range from 5% to 70%.<sup>11,12</sup> Here, we presented a case of Lippes loop IUD retained for 40 years, which was found at the cervical os and removed with spongy forceps.

## Case Presentation

This is a 75-year-old para 6 patient from Western Ethiopia who saw her last menses 25 years back. Her age at giving birth to her 1st child and menopause were 18 and 50 years, respectively. She had occasional pelvic pain for

the last 3 years for which she was visiting different health facilities. Currently, she presented to Nekemte Specialized Hospital with exacerbation of lower abdominal pain for 3 weeks. She feels discomfort in her vagina but no protrusion of mass through her vagina. She has no history of fever, abdominal swelling, vaginal discharge, or bleeding. All her previous deliveries were normal vaginal deliveries. Upon enquiring about the history of family planning utilization, she reported that the intrauterine device was inserted 40 years back at a public hospital. Since then, she had no history of gynecologic evaluation for a checkup. She had no history of gynecologic procedures, pelvic or abdominal surgery. The patient has no history of medical problems like diabetes mellitus, hypertension, cardiac or renal problems.

On examination, she was acutely sick-looking. Her vital signs were blood pressure (BP) = 120/80mmHg, pulse rate (PR) = 82 beats per minute, respiratory rate (RR) = 18 breaths per minute, and temperature of 37.1°C. She had pink conjunctivae. Lymph glandular system, chest, and cardiovascular system were normal. On abdominal examination, there was no mass, organomegaly, area of tenderness, or signs of fluid collection. Inspection of external genitalia showed no vulvar mass or lesion. On speculum examination, there is a foreign body at the external cervical os. However, there is no other cervical mass or lesion. On bimanual examination, the uterus was not enlarged and there was no adnexal mass or tenderness. On the integumentary system, she had no palmar pallor. On neurologic examination, she was oriented to time, person, and place. She had normal reflexes and no neurologic deficits.

On laboratory investigation, an ultrasound examination was done by a radiologist and showed unremarkable pelvic findings. Urinalysis, complete blood count, and serum blood glucose level were normal. With the final diagnosis of postmenopausal pelvic pain secondary to the retained intrauterine device, the patient was prepared and taken to the gynecology procedure room. In the lithotomy position, the speculum was inserted and the intrauterine device was easily removed with spongy forceps (Figure 1). The mother was observed for 4 hours and discharged with analgesia and doxycycline 100 mg PO twice a day for three days. Upon follow-up, the pelvic pain was resolved.



**Figure 1** Lippes Loop intrauterine device removed from a 75-year-old patient at Nekemte Specialized Hospital, 2021.

## Discussion

Management of retained or dislocated IUDs is controversial.<sup>5</sup> Some authors stated that this IUD can be left in the uterine cavity for an indefinite amount of time.<sup>1,9</sup> Other works of literature recommend removal.<sup>8</sup> Prolonged use of this device is common; however, it is associated with some problems, such as uterine infection, uterine bleeding, uterine perforation, bowel perforation, and pelvic abscess.<sup>5-7</sup> In postmenopausal women, it is related to chronic pelvic pain, pyometra, and abnormal uterine bleeding.<sup>7,13-15</sup>

In this case, the patient was frequently visiting health centers and clinics for recurrent pelvic pain. She was treated with different analgesics. The pain might result from the embedment of the uterine wall by the device, recurrent pelvic inflammatory disease, and chronic inflammatory response of the endometrium or uterine contraction to expel the device.<sup>1,6,7,10</sup>

Another possible cause of pelvic pain is uterine contraction, which is aimed at expelling foreign bodies from the uterine cavity.<sup>16</sup> In our case, the intermittent uterine contraction resulted in the expulsion of the IUD to the external cervical os. This was possible because the patient did not suffer embedment or perforation, which is more commonly reported.<sup>1,6,7,16</sup>

Though our case was visiting several health facilities with pelvic complaints, the diagnosis of retained IUD was not made until her current visit to this specialized hospital. In general, when patients report a history of IUD use and pelvic symptoms, diagnosis of retained IUD is usually established by speculum and pelvic US examination.<sup>4,13,15</sup> Transvaginal ultrasound examination is superior to pelvic examination to confirm the location of the IUD.<sup>13,17</sup> But in our case, the radiologist did not confirm the presence of the device in the uterus. Diagnosis of dislocated or migrated IUD requires an abdominopelvic x-ray, computerized tomography (CT) scan or magnetic resonance imaging (MRI).<sup>5,6,10</sup> In our case, the diagnosis was made by speculum examination.

IUD can be retained or forgotten in the uterus or outside the uterus for several reasons ranging from 22 to 50 years.<sup>1,4,17</sup> One of the main reasons why IUDs were forgotten in the uterus more than the expected time is poor counseling during insertion and failure to document the procedure performed.<sup>4,9</sup> Our case was not adequately counseled and informed of what to do with the device.

It is not easy to remove Lippes loop IUDs retained for several years.<sup>7,17</sup> Lippes loop IUDs tend to accumulate small deposits of calcium causing corrosion in the plastic. This compromises the strength of the device and tail rendering it liable to fracture and breakage.<sup>18</sup> In addition, these retained loops tend to bury in the endometrium, resulting in difficult removal with accompanying pain and bleeding. Removal may become more difficult after menopause because of atrophy of the uterus and cervical canal.<sup>4</sup> For these reasons, little literature recommends ripening the cervix with misoprostol.<sup>19</sup> Some difficult cases require laparotomy or laparoscopy.<sup>5,20</sup> In our case, removal was done by spongy forceps.

This case report is not without limitations. Poor quality of the figure and failure to include ultrasound images in the manuscript were among these limitations.

## Conclusion

Different works of the literature showed that retained Lippes loop IUD carry some complications. Our case also had postmenopausal pelvic pain. Therefore, we recommend the removal of IUDs at their expiry date or menopause. However, in the absence of embedment of an IUD into the uterine wall or uterine perforation, spontaneous expulsion of an IUD after prolonged use is possible.

## Abbreviations

CT, computerized tomography; IUD, intrauterine device; MRI, magnetic resonance imaging; PO, per os; WHO, World Health Organization.

## Data Sharing Statement

The datasets used during the current study are available from the corresponding authors on reasonable requests.

## Ethics Approval and Consent to Participate

Ethical clearance was obtained from the Research Ethics Review Committee of Wollega University (approval number/ID =WU/RD/557/2014). The study protocol is performed per the relevant guidelines.

## Consent for Publication

Written informed consent (consent to participate) was obtained from human participants for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

## Acknowledgment

We thank the patient for allowing the publication of this case report.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis, and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Disclosure

The authors report no competing interests in this work.

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