

## Case Report

### Case Report: Incidental finding of Retained Dilapan® found in a Woman Presenting with Perimenopausal Bleeding

Caroline Yap<sup>1\*</sup>, Alice Beardmore-Gray<sup>1</sup>, Sally Watkinson<sup>2</sup>

<sup>1</sup>Specialist Trainee in Obstetrics and Gynaecology, Department of Women's Health, Queen Elizabeth Hospital, London, UK

<sup>2</sup>Consultant Obstetrician and Gynaecologist, Department of Women's Health, Queen Elizabeth Hospital, London, UK

**\*Corresponding author:** Caroline Yap, Department of Women's Health, Queen Elizabeth Hospital, Stadium Road, Woolwich, London, SE18 4QH, United Kingdom. Tel: +442088366000; Email: cyap@doctors.org.uk

**Citation:** Yap C, Gray AB, Watkinson MS (2017) Incidental finding of Retained Dilapan® found in a Woman Presenting with Perimenopausal Bleeding. Ann Case Rep: ACRT-153. DOI:10.29011/2574-7754/100053

**Received Date:** 11 December, 2017; **Accepted Date:** 20 December, 2017; **Published Date:** 30 December, 2017

#### Abstract

Termination of pregnancy is an integral part of reproductive healthcare for women worldwide. Approximately one third of women will have a termination in their lifetime with just under 200,000 women undergoing the procedure each year in England, Wales and Scotland [1]. In the UK, common regimens for cervical dilatation prior to surgical termination of pregnancy include the use of prostaglandin analogues such as mifepristone and misoprostol. Under certain circumstances, such as in surgical termination of pregnancy after 14 weeks gestation, osmotic dilators provide superior dilatation to medical methods [2]. This report is a case review of a fifty-year-old African lady (Mrs X) who was referred to our two-week wait cancer clinic with a two-day history of perimenopausal bleeding associated with discharge and lower abdominal pain. Her pelvic ultrasound scan showed a calcified endometrium that led onto a thickened echogenic area within the cervix measuring 6.3x 30mm. Several other calcified areas and anechoic cystic areas were noted throughout the myometrium. A hysteroscopy and endometrial biopsy were performed, revealing a foreign body within the uterus measuring 60x5mm. This foreign body was consistent with a Dilapan on histology; a synthetic osmotic dilator. This lady reported having had a medical termination of pregnancy 15-20 years ago in Uganda. This is the first known case of prolonged retention of a synthetic osmotic dilator after surgical termination of pregnancy. Fortunately, this lady did not develop symptoms until twelve years later. However, this case highlights the importance of creating an open dialogue surrounding termination and the possible complications associated with it, in order for clinicians to be mindful of the potential side effects.

#### Background

Priming the cervix prior to surgical termination of pregnancy is thought to make the procedure easier <sup>3</sup> and reduce potential complications (such as cervical trauma and uterine perforation). A recent Cochrane review found that modern cervical ripening methods are safe and efficacious, in particular reducing the length of time taken to perform the procedure [3]. The most effective agents were found to be misoprostol (400mcg) or mifepristone (200mg) and osmotic dilators [3]. Dilapan is an example of a synthetic osmotic dilator. It consists of a hydrogel rod which is inserted into the cervical canal and expands over a period of 4-6 hours. This causes mechanical dilatation of the cervical canal as well as simultaneous endogenous prostaglandin release which further aids cervical ripening. It has been shown to work faster and

achieve higher diameters than natural dilators using laminaria [4], although other cohort studies suggest no benefit to using one type of dilator over another [5]. Both types of dilator have been widely used for decades and reports of complications in the literature are scanty. Nevertheless, it is recognised that they may get trapped and fragment within the uterine cavity causing infection, inflammation and pain. This complication however, is usually identified within 24hrs of insertion enabling removal at the time of termination with ultrasound guidance if needed. To date, there are very few case reports in the literature that highlight complications from retained laminaria [6-9].

These reports generally describe an acute history of pelvic pain and vaginal discharge within 24 hours of laminaria insertion [6-8]. There is only one other case review which identifies a

patient who has chronic pelvic pain and infertility resulting from prolonged retention of laminaria for twelve years [9]. We report a similar case involving an incidental finding of a retained dilapan in a fifty-year-old lady (Mrs X) presenting with perimenopausal bleeding. There are no other case reports in the literature describing chronic retention of a synthetic dilator such as this one. In contrast to the patient with a retained natural dilator (laminaria), our patient remained asymptomatic for a number of years.

## 1. Case Presentation

Mrs X is a fifty-year-old African lady who was referred to our two week wait cancer clinic with a two day history of perimenopausal bleeding associated with discharge and lower abdominal pain.

Mrs X reported that her last period was at the age of 49 and that she had been spotting every 1-2 months lasting for 1 day. She denied having menopausal symptoms such as hot flushes or night sweats. Two weeks prior to her consultation at our hospital, this lady reported having a bleed for two days which was heavier than her usual bleeds. It was associated with abnormal discharge and lower abdominal pain at the time. She did not have any bowel or bladder symptoms.

Mrs X is generally fit and well with no significant medical problems apart from HIV for which she is on regular antiretroviral treatment, with an undetectable viral load. Her past surgical history includes an open myomectomy for management of menorrhagia in 2011.

Mrs X had also been on HRT since 2011. She does not smoke or drink alcohol and her BMI is 35.

This lady had a scan which showed a bulky anteverted fibroid uterus measuring 130x90mm with a heterogenous echotexture containing several fibroids. The endometrium appeared regular at the fundus measuring 3mm and was separated by a trace of fluid. Inferiorly, it appeared the endometrium had calcified and this led onto a thickened echogenic area within the cervix measuring 6.3x30mm. Several other calcified areas and anechoic cystic areas were noted throughout the myometrium. The right ovary could not be seen. The left ovary was normal. There were no other obvious adnexal cysts, masses or free fluid seen.

In clinic, Mrs X did not tolerate a vaginal examination, however, the findings were generally unremarkable from the limited assessment. In view of her scan findings and history of altered bleeding, Mrs X was booked for a hysteroscopy and endometrial biopsy under general anaesthetic.

Hysteroscopic findings revealed a retained dilapan which was removed successfully (Figure 1,2).



**Figure 1:** Hysteroscopic image of the retained dilapan with surrounding calcification.



**Figure 2:** Image of the retained dilapan once removed.

Mrs X subsequently revealed that she had undergone a termination of pregnancy in Uganda over a decade ago (she was unsure of the exact dates).

She was discharged home with a course of antibiotics and reviewed in our clinic two weeks later. Histology showed inflamed endocervical tissue and florid infiltration of granulation tissue with predominant plasma cells.

## Discussion

Termination of pregnancy is a common procedure and access to safe methods of termination is an essential part of reproductive healthcare. We have a responsibility as clinicians to continually review the safety and efficacy of the care we provide.

It is important to be aware of the different methods of cervical dilatation used and be mindful of the potential complications associated with them.

Our aim in writing this case report is to draw attention to the fact that mechanical dilators (whether natural or synthetic) may, rarely, be retained and that this may lead to both acute and chronic symptoms. These might include, pain, discharge, bleeding and infertility. Both patients and clinicians should be made aware that these complications have occurred secondary to retention

of dilators in the past. We hope that there will now be increased vigilance amongst professionals to ensure that any dilators used are removed in a timely manner. There should be systems in place to ensure that this happens and that evidence of removal can be provided, since retention of any foreign body must be classed as a never event.

Whilst ultimate responsibility rests with the clinician, it is equally important that patients are aware of the possibility of retention so that they too can play their part in ensuring that dilators are not unintentionally left in situ.

A further key point we can draw from this case, is the importance of creating a supportive and open dialogue surrounding termination of pregnancy and the clinical care involved. Many women still feel reluctant to discuss termination of pregnancy because of perceived negative social or cultural attitudes [10]. As a result, there is a chance that many side effects and complications (such as prolonged retention of a dilator) may be under-reported and the diagnosis missed.

As clinicians, we must therefore make sure that we offer women the opportunity to disclose previous termination of pregnancy in a non-judgemental setting and encourage them to discuss their experiences openly, so that we can continue to improve the quality of care we provide.

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