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POSTMENOPAUSAL BLEEDING DUE TO A RETAINED INTRAUTERINE CONTRACEPTIVE DEVICE AND CERVICOVAGINAL ACTINOMYCOSIS: A CASE REPORT.

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ABSTRACT

Causes of postmenopausal bleeding can vary from malignancy to more seemingly benign causes such as a retained/forgotten intrauterine device. Obtaining a history of contraceptive device used in an older population who are post child-bearing age may be considered as less relevant when investigating the cause of postmenopausal bleeding. We present a case of 66 years old lady with a complaint of postmenopausal bleeding associated with intrauterine contraceptive device usage, which had been forgotten for 20 years, leading to cervicovaginal actinomycosis infection. The postmenopausal bleeding resolved with full recovery of illness after removal of intrauterine contraceptive device and treatment with the amoxicillin/clavunate.

Keywords: Actinomycosis, Bleeding, Intrauterine devices, Postmenopause, Primary healthcare.

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ABSTRACT

Causes of postmenopausal bleeding can vary from malignancy to more seemingly benign causes such as a retained/forgotten intrauterine device. Obtaining a history of contraceptive device used in an older population who are post child-bearing age may be considered as less relevant when investigating the cause of postmenopausal bleeding. We present a case of 66 years old lady with a complaint of postmenopausal bleeding associated with intrauterine contraceptive device usage, which had been forgotten for 20 years, leading to cervicovaginal actinomycosis infection. The postmenopausal bleeding resolved with full recovery of illness after removal of intrauterine contraceptive device and treatment with the amoxicillin/clavunate.

Keywords: Actinomycosis, Bleeding, Intrauterine devices, Postmenopause, Primary healthcare.

INTRODUCTION

Postmenopausal bleeding (PMB) is defined as bleeding after one year of amenorrhea in a woman who does not receive hormonal therapy.[1] The most common causes of PMB are benign causes such as atrophic vaginitis and endometritis (60%-80%).[2] However, malignancy is a diagnosis not to be missed. The most common malignancies are cervical cancer (12.9%) and endometrial cancer (11%).[2] Infective causes of PMB such as actinomycosis is well described and is commonly associated with intrauterine contraceptive device (IUCD) use with a reported incidence of 1.6 in general population to as high as 5.6 in clinic population.[3] However, actinomycosis associated with a retained IUCD causing PMB is rather rare and has only been reported in a handful of case reports and case series.[4-6] We report here a similar case of a retained IUCD for over 20 years in a 66 years old woman who presented with PMB and was associated with actinomycotic infection. This resolved with removal of the retained IUCD and antibiotics treatment.

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CASE REPORT

A 66-year-old female patient presented to the primary care clinic with a sudden onset of one day per vaginal bleeding after three years of menopausal period. The fresh bleeding soaked two pads in a day, and she denied any other symptoms. She was para seven with one set of twins, and her last childbirth was 26 years ago. Her menses were regular at 28 to 30 days cycle. She attained menarche at 16 years old and menopause at 63 years old. She had no past medical history. Initial past obstetric and gynaecological history taken at this moment was unremarkable.

Per speculum examination showed an inflamed cervix with pooling of fresh blood. There was a thread visible at the os. The foreign body's presence had triggered the patient to remember that she had IUCD insertion 20 years ago, which she had long forgotten.

Transabdominal ultrasound confirmed the finding, and subsequently, the IUCD was removed. Pap tests and endometrial sampling were sent. The histopathological findings showed masses of gram-positive branching filaments forming segment-like structures and being surrounded by inflammatory cells, mainly polymorphonuclear neutrophils, associated with Actinomyces (Figure 1a & b). Endometrial biopsy was normal. The patient was treated with the tablet amoxicillin/clavunate 625 mg twice a day for seven days. The symptoms resolved after the treatment, and repeated Pap test showed normal findings.

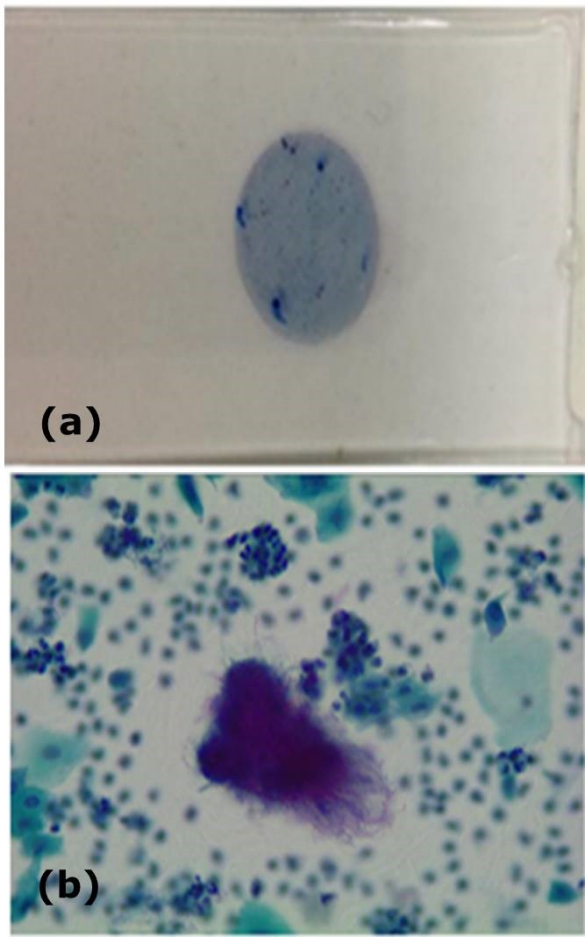

Figure 1: Slide of cervical Pap test. Liquid-based method. (a) Macro image of slide, (b) Abundant organism present with bacteria morphologically consistent with Actinomyces spp. Light microscope 10x magnification, Papanicolaou stain. (Click on image to enlarge.)

DISCUSSION

PMB symptom in a primary care setting is commonly associated with high clinical suspicion of cervical or endometrial malignancy. PMB can cause anxiety and fear among elderly ladies known to have a higher risk of malignancy. However, comprehensive history and physical examination are essential to guide primary care practitioners to rule out uncommon differential diagnosis such as cervicovaginal actinomycosis as demonstrated in this case study. In this case, the history of long-term IUCD usage is a crucial element to arrive at the diagnosis as actinomycosis are generally associated with IUCD used with incidence as high as 5.6 in clinic settings and are not found in non-IUCD wearers.[3]

Our patient had forgotten about the history of IUCD until a thread was seen unexpectedly during per speculum examination. She was not informed to be followed up after IUCD insertion 20 years ago and over the period of 20 years had completedly forgotten the device. In a study conducted in India in 2011, Guin et al reported the incidence of

forgotten or retained IUCD in their population of study was about 7%.[7] Such incidences of retained IUCD might reflected a pitfall in management at that time with a lack of follow up post procedure, in some of the cases. However, with the recent introduction of the Family Doctor Concept (FDC) personalization care in the Ministry of Health of Malaysia's primary care service, patients on family planning are registered and followed up regularly.[8] Hence the risk of neglected IUCD can be avoided.

Besides that, patient education is important. Appropriate and explicit instruction should be advised to the patients. Primary care practitioners should provide comprehensive counselling regarding IUCD insertion procedure, verbal and written consent, post-insertion complications, and follow-up compliance. The remainder of the IUCD expiry date and IUCD removal should be highlighted too. Patients can be given a small card stating the IUCD expiry date. Hence the risk of neglected IUCD can be minimized.

Actinomycosis is a rare chronic granulomatous disease caused by Actinomyces spp., which is obligates anaerobic Gram-positive bacteria, forming filamentous microcolonies that naturally colonize the human mouth, digestive, and genital tracts.[9] They are not virulent pathogens but rather as opportunistic as the infection usually occurs after the mucous membranes are disrupted.[10] Valicenti et al in a large population study reported the incidence of IUCD-associated Cervicovaginal Actinomycosis on Pap tests varies from 1.6% in general population to as high as 5.6% in a clinic settings.[3] A latter study in 1994 by Chatwani et al quoted a much higher incidence of 11.4%.[11] The predisposing factors for acquiring the actinomycosis infection are the destruction of the mucosal barrier by any trauma, chronic inflammatory disease, operative procedures, and immunosuppression.[12]

In our case, prolonged usage of IUCD might have caused mucosal barrier destruction, leading to inflammatory changes and necrosis. It might have created an anaerobic environment that favors Actinomyces growth, hence increased risk for actinomycosis.[3] Further dissemination of Actinomyces spp. infection to the cervix could be due to the IUCD's thread left in the exocervix. Another possible route is via the perineum, which the microorganisms could disseminate from the anus up through the cervicovaginal zone.

The colonization of actinomyces does not require any treatment or IUCD removal if the patient is asymptomatic.[13] However, the presence of any symptoms should be further evaluated as it can disseminate to the surrounding structure such as uterine tube, ovarian parenchyma, bladder, ileocaecal and rectosigmoid region, colon, urethra and extension to the skin, to cause severe infection.[14,15]

CONCLUSION

In conclusion, PMB in older women should be thoroughly investigated for a variety of causes ranging from malignancy to more common benign causses such as atrophic vaginitis and endometritis. However rarer causes such as retained IUCD with superimpose actinomycosis should be excluded through a comprehensive reproductive history and investigations such as hysteroscopy or ultrasound should be mandatory. Education and follow-up should also be part of the clinical management of patients with IUCD in primary care to reduce complications of retained IUCD.

CONFLICT OF INTEREST DISCLOSURES

There is no conflict of interest to be disclosed by all authors.

CONSENT

We acquired written consent from the patient. The case report has been registered under National Medical Research Register (NMMR) and the ID is 20278957675.

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