

**BENIGN INFLAMMATORY CERVICAL SMEAR IN A BACKGROUND OF NORMAL DIAGNOSTIC DILATATION AND CURETTAGE FINDING - A RARE PRESENTATION OF ENDOMETRIAL CARCINOMA**Shaiful Ehsan Shalihin<sup>1\*</sup>, Zulkifli Harun<sup>2</sup> and Iskandar Firzada<sup>3</sup><sup>1</sup>MMed Family Medicine UIAM, Department of Family Medicine, IIUM, Kuantan.<sup>2,3</sup>MMed Family Medicine UKM, Klinik Kesihatan Jaya Gading, Kuantan.**\*Corresponding Author: Asst. Prof. Dr. Shaiful Ehsan Shalihin**

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**ABSTRACT**

Endometrial carcinoma is a primary tumor of the uterus that usually presented with abnormal uterine bleeding commonly in post-menopausal woman. However, it can also manifests as abnormal cervical cytology even in a pre-menopausal age group which should be confirmed by endometrial biopsy.<sup>[1,2]</sup> There is no evidence to support mass screening for endometrial carcinoma in view of low efficacy of the test and lack of cost-effective benefit in detecting the disease.<sup>[1,2]</sup> Nevertheless, cervical screening is really useful in reducing risk of invasive cervical cancer and reduced the mortality. It is available at primary care centres and indirectly useful for endometrial carcinoma detection.<sup>[2,3]</sup> Dilatation and curettage (D&C) is an invasive and diagnostic procedure to identify specific causes for abnormal uterine bleeding with high sensitivity of up to 99% in detecting endometrial lesions.<sup>[1,2]</sup> We would like to report a case of a rare presentation of early endometrial carcinoma manifested as incidental findings of benign inflammatory cervical changes in a low suspicious patient in view of clear findings of the initial diagnostic D&C.

**KEYWORDS:** ENDOMETRIAL CARCINOMA, CERVICAL SMEAR.**INTRODUCTION**

Routine cervical cancer screening at primary care has contribute to the significant decreasing trend of the incidence of morbidity and mortality from cervical cancer. Cervical cancer screening detects precancerous lesions and early-stage disease in which patient will benefit early less invasive treatment.<sup>[1,2]</sup> Methods for screening suggested by guidelines include evaluation with the Papanicolaou test (Pap smear) and testing for high-risk types of human papillomavirus (HPV).<sup>[1,2]</sup> Most guidelines either local or worldwide suggest screening every 3 years if using Pap test.<sup>[1,2]</sup> Nevertheless, role of Pap smear in screening for endometrial carcinoma is controversial as Pap smear is primarily a screening test for squamous cell carcinoma of cervix.<sup>[3,4]</sup> However, if the results turn out to be findings of atypical glandular cells or endometrial cells, further investigations are required to rule out neoplasia including endometrial origin. These includes endometrial sampling irrespective of patient's age, menstrual status or previous diagnostic testing.<sup>[5,6]</sup> The accuracy of dilatation and curettage in the detection of endometrial hyperplasia and carcinoma is relatively high compared to other assessment modalities.<sup>[7-9]</sup> However, the carcinoma diagnosis still can be missed especially in focal lesion or early presentation.

**CASE REPORT**

We report a case of early detection of endometrial carcinoma in a 56 year old diabetic woman from conventional Pap smear result. She initially presented with premenopausal symptoms in early 2011 associated with prolonged menses and irregular cycles for one year. She was referred to gynaecology team and subsequently benefit hysteroscopy with diagnostic dilatation and curettage (DD&C). The biopsy was confirmed to be normal. She was discharged from tertiary centre with reassurance. The symptoms later resolved when she was prescribed with hormonal replacement therapy (HRT) in view of her worsening hot flushes and vaginal dryness. She benefit HRT for four years and stop on her own in 2015. However, her prolonged menses with irregular cycles recurs again since early 2016. She had benefit regular cervical Pap smear at our clinic and results showed to be persistent benign cellular changes associated with inflammation for two subsequent readings in six months period. Despite her previous normal biopsy result from DD&C, we still referred this patient again to gynaecology team for endometrial biopsy in order to find out the possible causes of her persistent inflammatory changes. Furthermore, our local guideline has suggested any practitioner to make referral for gynaecology assessment if the inflammatory changes

persist up to three times. The result surprisingly revealed endometrial carcinoma stage 1 and she was treated surgically well.

Following image is the MRI of her uterus showing irregular and thickened endometrial wall of the uterus

which correlated with the features of carcinoma as reported on histopathological examination of her endometrial biopsy. The MRI scan was done for staging of her illness.



**Figure 1: MRI revealed bulky uterus with irregular thickened endometrium & disruption junctional line.**

## DISCUSSION

Early diagnosis of endometrial cancer in younger patients has good prognosis and better survival because of its lower stage and lower grade.<sup>[1-5]</sup> However, in view of no massive screening recommendation, assessment is mostly done in symptomatic patient.<sup>[1,5]</sup> Endometrial carcinoma is the most common cancer in female genitourinary system typically presents with abnormal uterine bleeding, commonly in postmenopausal woman.<sup>[9,10]</sup> Therefore, it is commonly missed in premenopausal woman especially those with concomitant premenopausal symptoms.<sup>[10]</sup> Their prolonged menses might be falsely associated with hormonal changes.<sup>[11,12]</sup>

Nevertheless, worldwide, guidelines had recommend endometrial evaluation for all woman with AUB above age 35. Our patient indeed had benefit hysteroscopy and diagnostic dilatation and curettage initially at her referral to gynaecology team for her abnormal uterine bleeding. Nevertheless, she was reassured to be normal. The possibility of her false negative result would be inadequate sampling or early histological changes that cannot be pick up initially.<sup>[7-9,13]</sup>

However, routine conventional cervical screening did save her life in which brought her for second endometrial sampling despite the initial normal result. Role of Pap smear in screening of endometrial carcinoma is less clear as Pap smear is historically an effective screening tool for cervical carcinoma.<sup>[1,2]</sup> There are very few studies addressing the utility of Pap smears in diagnosing endometrial carcinomas. However, if the results turn out

to be suspicious or findings of atypical glandular cells, further investigations are required to rule out neoplasia including endometrial origin.<sup>[5,6]</sup> These includes endometrial sampling irrespective of patient's age, menstrual status or previous diagnostic testing.

However, in this case, our patient's cervical changes are indeed atypical for endometrial carcinoma presentation in which there is no presence of adenocarcinoma, atypical glandular cells or endometrial cells detected. Her isolated non-intraepithelial inflammatory changes indeed favours benign condition in which her carcinoma might be missed if clinical suspicious was not been highlighted.<sup>[14]</sup>

Important message from this case that can be learn includes the role of clinical assessment at primary care. Detailed history taking and complete thorough examination will identify the possible suspicious diagnosis even without diagnostic investigation at primary care level. No matter the result, it should be correlate with patient's clinical presentation and low threshold of referral should always be practice if indicated. Our case indeed has proved that regular screening for cervical carcinoma using pap smear is indeed useful not only confined to the cervical lesion, but it also can be the hidden signs for uterine neoplasm. Pap smear of at least every three years is indeed useful at primary care setting and should be followed according to schedule even if the patient had undergone previous diagnostic test and was told to be normal. This case also emphasized that persistent inflammatory changes on pap smear is indeed indicated for referral and further

gynaecological assessment including assessment for endometrial origin. Regular follow up of patient with abnormal uterine bleeding should always be practiced despite previous multiple assessment as the true findings may presented late though this is rare.

### CONCLUSION

Our case proved routine cervical screening is beneficial for early detection, not only cervical carcinoma, but endometrial carcinoma. Even though, inflammatory changes favours benign diagnosis, persistent inflammatory condition should be referred to tertiary centre for further evaluation to rule out possibility of carcinoma, regardless of the previous initial normal evaluations.

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