REPROD CLIM. 2016;xxx(xx):xxx–xxx

Reprodução & Climatério

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Case report

Huge postmenopausal pyometra: a complication of non-specific atrophic endometritis with senile cervical changes

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ARTICLE INFO

Article history:
Received 31 December 2015
Accepted 22 January 2016
Available online xxx

Keywords:
Pyometra
Menopause
Ultrasound
Atrophy
Endometrium
Uterus

ABSTRACT

Introduction: Pyometra has an incidence of less than 1% of gynecologic patients. Most cases are due to some genital tract malignancy, mainly squamous cell carcinoma of the endometrium, impairment in the natural drainage through cervix due to stenosis or neoplasms and the consequences of radiotherapy. Pyometra in postmenopausal women hardly responds to antibiotic therapy. Pyometra drainage was done with great difficulty.
Case report: We report a case of a postmenopausal female who presented with an offensive vaginal discharge; the examination showed an enlarged uterus, with an approximate size of a 16-week pregnancy. The obstruction was due to senile atrophy of the cervical canal with stenosis, and the cervix and vaginal fornix were flushed. Ultrasonography revealed an enlarged uterus with a fluid collection in it. The patient was treated with antibiotics; then total abdominal hysterectomy was carried out, due to cervical dilatation failure under anesthesia. Histopathology revealed an atrophic endometrium with non-specific endometritis.
Conclusion: It must be born in mind that pyometra can also occur due to benign conditions.

Piometra importante na pós-menopausa: complicação de endometrite inespecífica com alterações cervicais senis

Palavras-chave:
Piometra
Menopausa
Ultrassom
Atrofia
Endométrio
Útero

RESUMO

Introdução: A piometra tem incidência inferior a 1% em pacientes ginecológicas. Em sua maioria, os casos se devem a alguma malignidade do trato genital, sobretudo o carcinoma das células escamosas do endométrio na drenagem natural através da cérvix, devido a estenoses ou neoplasias e das consequências de seu tratamento com a radioterapia. Dificilmente a piometra em mulheres na pós-menopausa responderá à antibioticoterapia. A drenagem da piometra foi realizada com grande dificuldade.

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http://dx.doi.org/10.1016/j.recli.2016.01.002
1413-2087/

Please cite this article in press as: El-Agwany AS. Huge postmenopausal pyometra: a complication of non-specific atrophic endometritis with senile cervical changes. Reprod Clim. 2016. http://dx.doi.org/10.1016/j.recli.2016.01.002

Relato de caso: Descrevemos o caso demulher na pós-menopausa que se apresentou com corrimento vaginal fétido; ao exame, a paciente estava com o útero aumentado, com tamanho aproximado ao de uma gestação de 16 semanas. A obstrução foi devido à atrofia senil do canal cervical, acompanhada por estenose, e o fluxo no colo do útero e fórnix vaginal foram ruborizados. A ultrassonografia revelou útero aumentado com uma coleção de líquido em seu interior. A paciente foi tratada com antibióticos e, em seguida, por panhisterectomia abdominal, em decorrência do insucesso na dilatação cervical sob anestesia. A histopatologia revelou um endométrio atrófico com endometrite não específica.
Conclusão: É importante ter em mente que a piometra pode também ocorrer por causa benigna.

Introduction

Pyometra is a rare accumulation of pus in the uterine cavity, with a reported incidence of 0.01–0.5% in gynecologic patients.[1] The incidence of pyometra increases with age and is 13.6% in elderly patients. Median age of presentation is 65 years and less than one-third are associated with underlying malignancy.[2] Other causes are foreign bodies, puerperal infections or uterine anomalies.[3] The main complications are bacteremia, sepsis and spontaneous uterine perforation with generalized peritonitis. Treatment of choice is dilatation of the cervix and drainage of pus under adequate antibiotic cover.[1] Pyometra hardly responds to the usual treatment of antibiotics therapy. Pyometra drainage can be with great difficulty due to menopausal cervical stenosis.[4]

Case presentation

A 65-year-old female, G4P4, with history of vaginal delivery and postmenopausal status since 10 years, was referred to our hospital on 6/2015 with offensive irritating vaginal discharge since months. On physical examination, she was not febrile and uterus was enlarged about 16 weeks of gestation. Vaginal examination revealed atrophic vulva and vagina, cervix was flushed with vaginal walls with stenotic cervical os that was not visible with foul smelling pus oozing out from the uterus. Adnexa were clear of any mass or tenderness. The hematological, biochemical and coagulation tests were normal. Ultrasonography showed enlarged uterus with fluid collection with echoic shadows in the cavity suggestive of hydro, hemato or pyometra. Pus samples for culture were taken and empirical treatment with triple antibiotics of ampicillin, gentamycin and metronidazole for 48 h till endometrial sampling. Cervical dilatation failed under anesthesia for sampling was initiated and drainage that was not repeated for fear of perforation and spreading of pus. So, total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. Histopathology revealed non-specific atrophic endometritis with no evidence of malignancy. Examination of the fluid collection revealed purulent discharge. Culture revealed *E. coli* (Figs. 1 and 2).

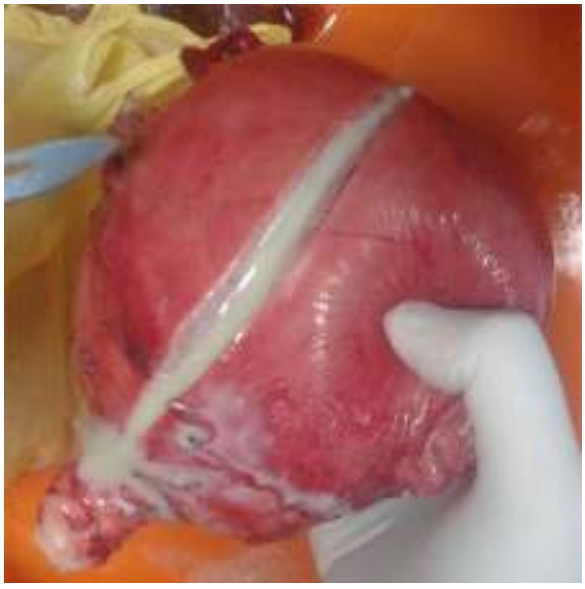

Figure 1 – Total hysterectomy with pus coming out on incision of the myometrium.

Discussion

Pyometra, in postmenopausal females is due to obstruction in drainage of the uterine cavity.[5] The usual presentation is foul smelling vaginal discharge, pain lower abdomen, pyrexia and sometimes postmenopausal bleeding.[6] The main causes are malignant diseases of the genital tract and its treatment like radiotherapy associated cervical stenosis. Other causes are senile cervicitis, endometritis, cervical stenosis after surgery, cervical leiomyoma and congenital cervical anomalies.[7]

After menopause, when endometrium loses its resistance – not shed repeatedly, infection which gains entrance to uterus persists as senile endometritis.

The pus which tends to collect in uterus forms pyometra, as cervix is narrowed by senile change and atrophied myometrium unable to expel it.

Ultrasound is used in most cases for diagnoses but sometimes CT magnetic resonance and Doppler scanning for excluding malignancy like endometrial cancer. X-ray are used in spontaneous perforation of the uterus.[8,9]

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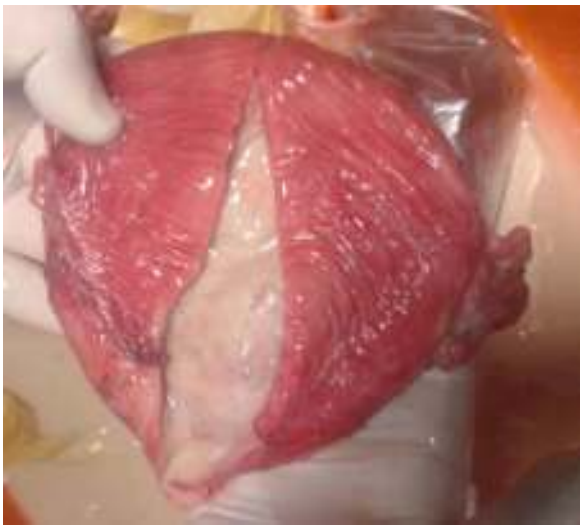

Figure 2 – Uterine thin walls by distension with smooth endometrial lining with no suspicious masses with purulent fluid lining the cavity.

Most women are treated with dilation of the cervix and drainage, with regular monitoring to detect recurrent or persistent disease. Antibiotics are only necessary if there is evidence of invasive infection, in the form of generalized malaise, pyrexia, or altered laboratory parameters.

If antibiotics have to be used, preparations covering aerobic and also anaerobic bacteria should be used.

Current research is focused on a group of drugs called carbapanems, which have an exceptionally wide spectrum of activity.Tubercular pyometra should be treated with appropriate anti-tubercular chemotherapy.

Drainage of pus by repeat dilatations, usually done biweekly or putting a Foley's catheter/drainage tube followed by curettage under antibiotic was the primary treatment. Removal of intrauterine contents with ovum forceps is needed for biopsy better than curettage to avoid spreading of sepsis.

Time required for drainage of pus was found to be significantly shortened in cases of foley's catheter tube were inserted into the uterine cavity. Pus around 15-500 ml average of 65 ml collects.

Management of pyometra because of senile endometritis - Panhysterectomy within one month under routine antibiotic coverage. Those not fit for surgery medical management by prolonged cyclic oestrogen therapy (premarine 0.625 mgm daily) for 4-6 months.

Recurrences occur 2-11 months.

Prognosis depends on the medical condition. Spontaneously perforated pyometra has better prognosis if not associated with malignancy.[6] Also, pyometra that is early diagnosed and treated have good prognosis.

Conclusion

Pyometra is a serious medical condition, because of both its association with malignant diseases and the danger of spontaneous perforation. Pyometra may not be associated with malignancy. Early treatment is necessary to diminish the complications of pyometra. Ultrasound is important in assessing fluid collection in the uterus.

Conflicts of interest

The author declares no conflicts of interest.

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