

Pinworms and postmenopausal bleeding

H K Al-Rufaie, G H Rix, M P Pérez Clemente, T Al-Shawaf

Abstract

The human pinworm *Enterobius vermicularis* is normally found within the human gastrointestinal tract. Pregnant females migrate out of their host's anus at night to lay their eggs perianally. As a consequence of this nocturnal migration some worms find their way into adjacent orifices, most commonly the female genitourinary tract, producing irritative symptoms such as vulvovaginitis. A case of pinworm infestation of the uterus presented as postmenopausal bleeding.

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Keywords: *Enterobius vermicularis*; endometrium; postmenopausal bleeding

Case report

A 77 year old woman presented to her general practitioner with two episodes of vaginal bleeding over a period of six weeks. He diagnosed atrophic vaginitis and prescribed oestrogen vaginal cream. The bleeding became more persistent, so she was referred to the outpatient gynaecology clinic for a second opinion. Apart from perineal irritation, the patient had no other symptoms. She lived with her husband and had undergone the menopause over 25 years previously.

On vaginal inspection marked atrophic changes were noted and on pelvic examination the uterus was small with no detectable masses present. The perineal area was unremarkable.

A hysteroscopy was performed under general anaesthetic. The uterine cavity was noted to be small with an atrophic endometrium. Anteriorly a 1-2 cm benign looking polyp was present and a small submucous fibroid posteriorly. The polyp was removed and sent for analysis. Microscopy revealed an endometrial polyp of

glandular cystic type. The endometrial stroma showed non-specific focal inflammation. Some dilated endometrial glands contained both live and degenerated calcified pinworms (fig 1).

The patient was prescribed a course of mebendazole and the general practitioner was informed in order to treat the rest of the household. Two years later the patient remains asymptomatic.

Discussion

The life cycle of the human pinworm *Enterobius vermicularis* takes place within the human gastrointestinal tract. Infection occurs faeco-orally and ingested ova hatch in the duodenum, developing into adult worms that colonise the large bowel, where fertilisation takes place. Pregnant females migrate out of the anus at night, lay their eggs perianally, and die.¹ Nocturnal errors of navigation by gravid females can lead to their entry into adjacent orifices so that they have been found in the urinary tract as far as the kidney and in the female genital tract as far as the peritoneal cavity.² Many carriers remain asymptomatic but the commonest symptoms are nocturnal pruritus ani.

The most usual gynaecological presentation is either the accidental finding of ova on cervical smears³ or as vulvovaginitis, especially in children.^{2,4} Other presentations include salpingo-oophoritis,^{2,5} a pelvic or ovarian mass,^{2,6} pelvic pain,⁷ and in one reported case pinworms were found in a macerated embryo.⁸

There are only two other reported cases of vaginal bleeding associated with pinworms; Simons⁹ found a pinworm in the cervix of a 42 year old multipara with a six month history of blood stained vaginal discharge, while Klee¹⁰ discovered a pinworm granuloma associated with a squamous carcinoma of the cervix in a 59 year old woman with two episodes of postmenopausal bleeding. To our knowledge, ours is the first reported case of pinworms in the endometrium presenting as postmenopausal bleeding. Live and degenerated pinworms were only seen in the dilated endometrial glands in this case. No pinworms were seen in the stroma, nor were there any ova or granulomatous reactions, although pinworms and particularly their ova can produce inflammatory granulomas at various sites, including the endometrium.^{6,11} The presence of the worms may have led to dilatation of glandular tissue, non-specific inflammation, and polyp formation.

Department of
Histopathology, West
Suffolk Hospital, Bury
St Edmunds, UK
H K Al-Rufaie
G H Rix
M P Pérez Clemente

Directorate of
Women's Services,
Fertility Centre, St
Bartholomew's
Hospital, West
Smithfield, London
EC1, UK
T Al-Shawaf

Correspondence to:
Dr H K Al-Rufaie,
consultant pathologist,
Department of
Histopathology, West Suffolk
Hospital, Hardwick Lane,
Bury St Edmunds, Suffolk
IP33 2QZ, UK.

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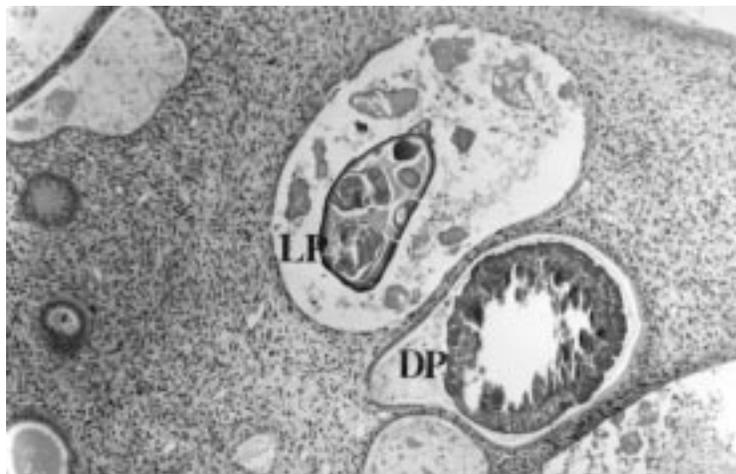


Figure 1 Dilated endometrial glands containing live (LP) and dead calcified (DP) pinworms.

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