

## Postcoital bleeding in a 26-year-old woman: a rare case of a cervical capillary haemangioma

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A 26-year-old woman with a 2-month history of postcoital bleeding—which she described as very heavy loss, lasting 2 days—attended our unit.

The patient used a progesterone implant for contraception. She had a history of 2 caesarean sections, aged 20 and 23 years; during both pregnancies she had been admitted to hospital for heavy antepartum bleeding at first and third trimester respectively. Additionally, following a medical termination of pregnancy aged 25 years, the patient had prolonged vaginal bleeding lasting 2 months. She had no history of cervical surgery. She was prescribed sertraline for depression. On examination she was generally fit and healthy-looking, and of typical range BMI. She had no abnormal cutaneous lesions.

Laboratory investigations showed a haemoglobin concentration of 127.0 g/L (typical range 120.0-165.0), platelet count  $201 \times 10^9$  per L (typical range 150-400), white blood cell count  $6.89 \times 10^9$  per L (typical range 3.7-11.0), prothrombin time 10.1 sec (typical range 20.0-30.0), C-reactive protein concentration 5.0 mg/L (typical level <5).

Colposcopic examination showed a smooth, well-defined, erythematous and vascular abnormality on the ectocervix (figure; appendix). A cervical punch biopsy was done resulting in profuse bleeding. Immunohistopathological examination of a sample obtained by cervical punch biopsy showed dilated and congested thin-walled blood vessels in the cervical stroma with erythrocytes within their lumen which was positive for CD31—confirming the diagnosis of a benign capillary haemangioma (figure; appendix).

Pelvic ultrasound showed a normal cervix. A pelvic MRI found the haemangioma involved over two thirds of the ectocervix causing expansion of the myometrial layer and reaching the external cervical os (figure; appendix).

Considering the patient's age and the size of the haemangioma, we decided on consultation with the patient that it was best to keep her under observation. And at follow-up 6 months later, a repeat MRI and colposcopy showed the lesions to be stable.

Haemangiomas are common benign vascular lesions mostly found in the skin, subcutaneous tissue, and solid abdominal organs.

Haemangiomas located in the female genital tract are less common; in the cervix uteri they are extremely rare. Most cervical haemangiomas are of the cavernous subtype. Often asymptomatic and discovered incidentally, clinical manifestations can include intermenstrual and postcoital bleeding, dyspareunia, fertility and obstetrical issues. Whilst many cervical haemangiomas will spontaneously regress, some can result in—sometimes life-threatening—haemorrhage during pregnancy and labour. Management of cervical haemangiomas includes surveillance or local excision; hysterectomy is usually reserved for rare cases where conservative and other surgical interventions have been unsuccessful. Uterine artery embolisation may be considered in cases of intractable cervical bleeding

and cervical cerclage may be necessary to control bleeding—especially in cases of extensive blood loss after local excision.

Differential diagnoses include invasive cancer and cervical ulcers, endothelial malignancies—such as angiosarcoma—and low-grade vascular neoplasms. Venous malformations are also important differentials in patients presenting with cervical masses and vaginal bleeding.

### Contributors

KH and PS conceived the project and drafted the manuscript. KH, PR, MO and HS provided expert input and figures. KH, PS, MO, and PR revised the draft. All authors approved the final manuscript. Written consent for publication was obtained from the patient.

### Declaration of interests

We declare no competing interests.

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### **Figure: Postcoital bleeding in a 26-year-old woman: a rare case of a cervical capillary haemangioma**

(A) Colposcopy shows a nearly circumferential, well demarcated, slightly raised, vascular lesion on the ectocervix with intact surface. (B) Immunohistochemical analysis of a sample obtained from cervical punch biopsy with CD31 is positive for blood vessels. x40 magnification. (C) Sagittal T2-weighted MRI shows a large lesion in the cervix (green arrows), causing expansion of the myometrial layer and extending to the external cervical os (green arrowhead).

### Multiple-choice question

#### **Postcoital bleeding in a 26-year-old woman: a rare case of a cervical capillary haemangioma**

A 26-year-old woman with a 2-month history of postcoital bleeding—which she described as very heavy loss, lasting 2 days—attended our unit.

The patient used a progesterone implant for contraception. She had a history of 2 caesarean sections, aged 20 and 23 years; during both pregnancies she had been admitted to hospital for heavy antepartum bleeding. Additionally, following a medical termination of pregnancy aged 25 years, the patient had prolonged vaginal bleeding lasting 2 months. She had no history of cervical surgery. Colposcopic examination showed a smooth, well-defined, erythematous and vascular abnormality on the ectocervix. A cervical punch biopsy was done resulting in profuse bleeding. Histopathological examination of [the obtained tissuea](#) sample ~~obtained by cervical punch biopsy~~ showed dilated and congested thin-walled blood vessels in the cervical stroma with erythrocytes within their lumen—confirming the diagnosis of a benign capillary haemangioma. Which of the following statements is false?

- A) A benign ectropion is one of the commonest causes of postcoital bleeding
- B) Colposcopy is usually performed to rule out invasive cervical carcinoma
- C) MRI often fails to differentiate between benign and malignant cervical tumours
- D) Cervical haemangiomas are rare benign tumours and need to be considered in patients with postcoital bleeding

Answer C) using all 3 images.