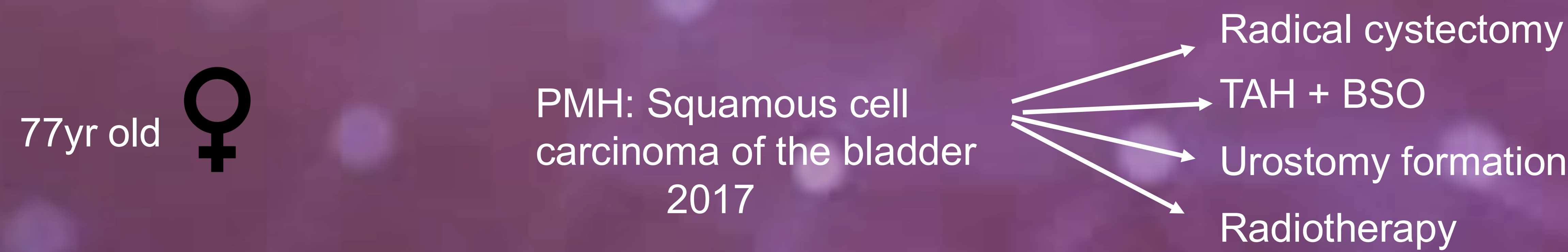


Case report: Fistula of unknown origin

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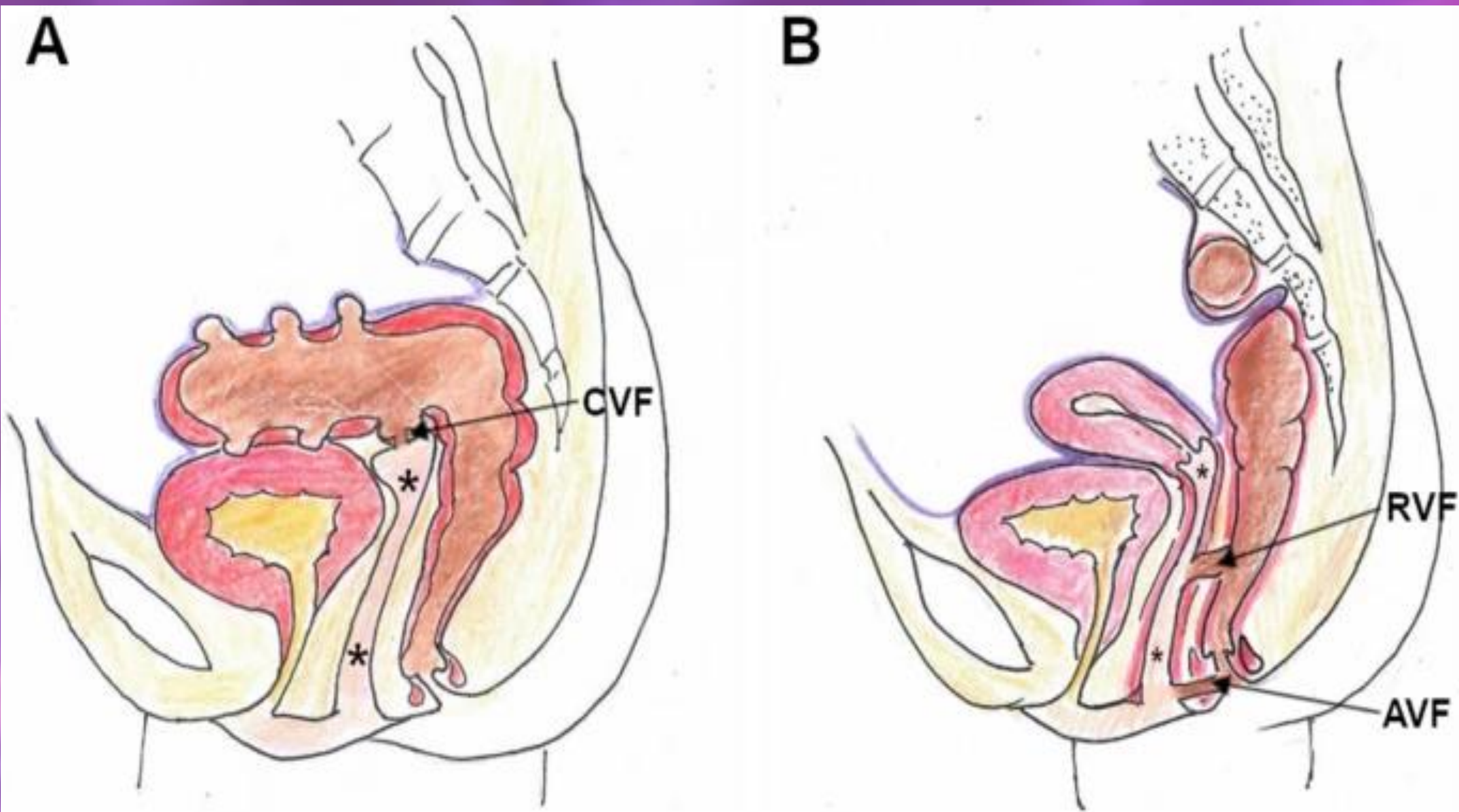
Unusual case where the origin of the fistula is still yet to be confirmed. The patient presented repeatedly with abdominal pain and presumed faeculant matter per vagina, but investigation is yet to prove the presence or reveal the location of the connection of the presumed colo-vaginal fistula.



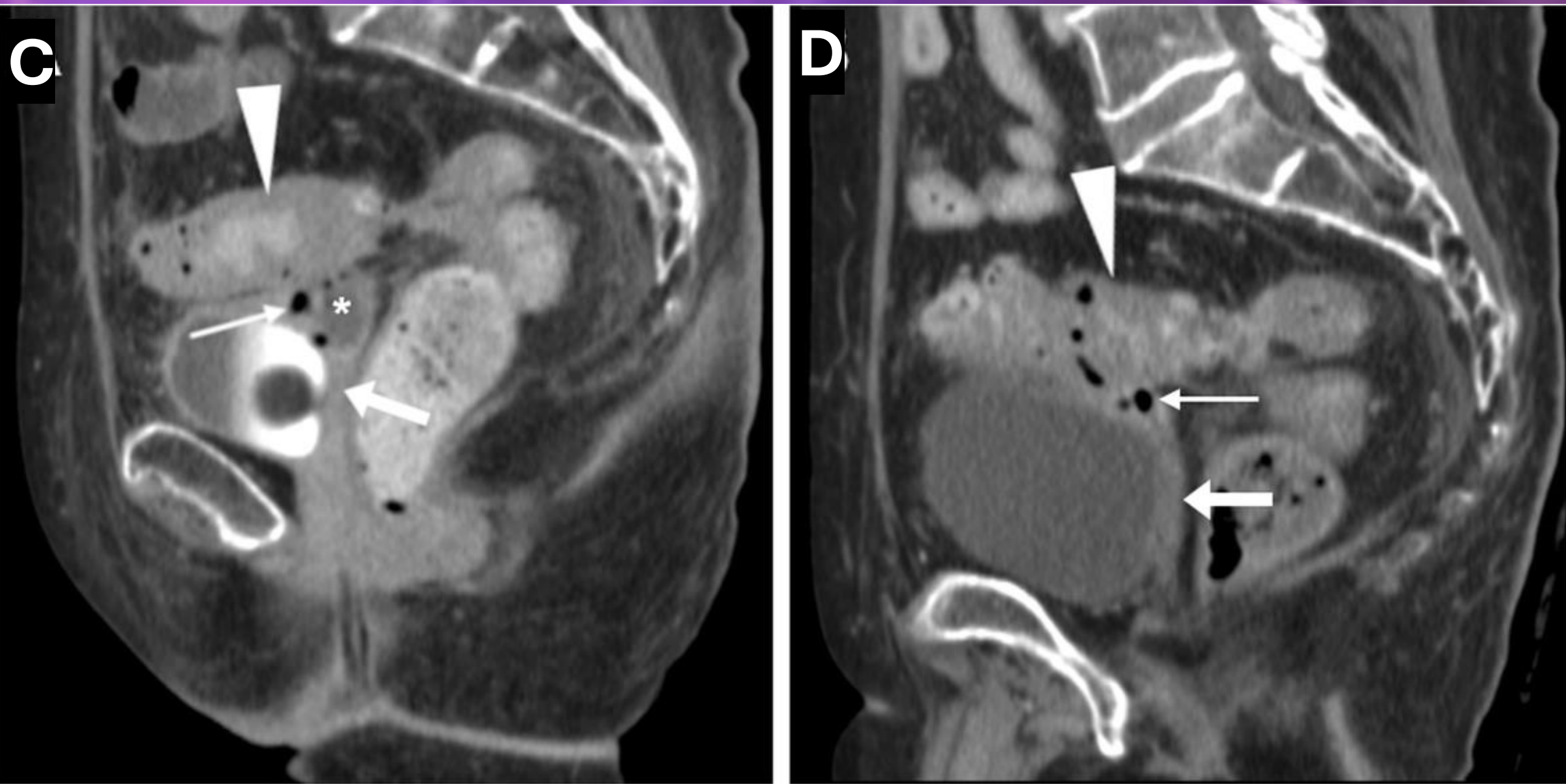
PC: sudden onset lower abdominal pain, new vaginal mass with vaginal fluid leakage

Timeline
November 2024: Initial emergency presentation with large 7cm mass protruding from the vagina with sudden onset abdominal pain and fluid leakage. MRI revealed prolapse of intra-abdominal fat with a loop of small bowel at the vaginal vault. Examination under anaesthesia (EUA) and excision of the mass was performed and histology was reported as fatty tissue with areas of ulceration and neovascularisation, no evidence of malignancy.
November-December 2024: Multiple readmissions with worsening pain, constipation and increasing brown vaginal discharge. Treated with antibiotics and analgesia. Repeat imaging (CT and repeat MRI) revealed no abnormality and no fistula despite the discharge visibly being strongly akin to faeces.
January 2025: Repeat EUA due to ongoing symptoms. Revealed faeces in the vagina appearing to originate from the vaginal vault where a small dimple was visualised and felt to be the site of a fistula.
January 2025: Inpatient flexible sigmoidoscopy during her 8th inpatient stay in 8 weeks. This was reported as a normal study up to the splenic flexure with no abnormalities demonstrated.
February 2025: Colorectal outpatient appt with discussion regarding surgical intervention for definitive diagnosis and treatment. Decision made for dietician input with further review scheduled
March 2025: Review in colorectal outpatient setting, with improvement in symptoms since introduction of high protein diet but required iron infusion for anaemia
April 2025: Follow up with Colorectal team; patient reported remains symptomatic and wants to proceed with surgical management of her presumed fistula via the robotic route with ureteric stenting and use of ICG
This patient is still awaiting her definitive procedure

Discussion:
Despite imaging modalities such as CT and MRI being the mainstay of diagnosis for enterovaginal fistulas, this case provides an interesting basis for discussion regarding the best steps to take when investigation remains negative despite high suspicion for a positive diagnosis. Second line investigation such as flexible sigmoidoscopy can always be utilised to attempt to locate the fistula with the naked eye but as in this patient again, it may not always confirm the presumed diagnosis. When the history, symptoms and examination strongly indicate the diagnosis of a fistula especially in a patient with risk factors, further multidisciplinary discussion and assessment is required to reach a conclusion for diagnosis and management tailored to the individual case. In this patient’s case the presentation was delayed 7 years following what is presumed to be the index event of her oncological diagnosis and treatment with surgery and radiotherapy. This must raise our attention to the significance of delayed effects of treatment which require education for patients and healthcare professionals alike. Eventually this patient has been booked to undergo surgical management of her presumed fistula requiring multidisciplinary input and planning involving radiology, urology, colorectal surgeons and theatre staff



Schematic diagram of enterovaginal fistulas in A) colo-vaginal fistula and B) rectovaginal fistula



MRI images of colo-vaginal fistula in patient with previous hysterectomy showing C) small abscess at the vaginal vault and D)air bubbles in vaginal vault

Both schematic diagram and MRI images from Tonolini, M. Elucidating vaginal fistulas on CT and MRI. *Insights Imaging* **10**, 123 (2019). <https://doi.org/10.1186/s13244-019-0812-9>

Conclusions:
Further attention is needed for ‘fistulas in gynaecology’ with emphasis on education within the specialty for both medical professionals and affected patients. It should form part of our list of differential diagnoses especially in those with risk factors such as previous pelvic malignancy, radiotherapy and surgery. This will aid both the investigation and recognition of this potential life altering complication