disease control. Our case appears to have been successfully managed by radical surgical excision alone and there was no detectable serum PSA or evidence of tumour recurrence in clinical examination and imaging studies during the 2 year follow up period.

This rare case emphasises keeping an open mind in approaching an adenocarcinoma in the female urethro-genital region. Serum PSA level and PSA immunohistochemical staining should be considered in any case of urethro-genital adenocarcinoma in female patients. PSA positivity, if detected, not only demonstrates the possibility of Skene's gland origin but also provides a non-invasive long term follow up method by serum PSA monitoring.

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Imposter mucin: awareness of an important cytology artefact

Sir,

A mucin-mimicking artefact produced in surgical suction canister liner bags made from thick, opaque material has been identified in the setting of peritoneal washing cytology. This poses a potential problem in the misdiagnosis of mucin in peritoneal washing cytology specimens. An increasing number of different collection devices are now documented to contribute to this artefact. We report the finding of mucin-like artefact with Receptal branded liner bags (Amsino International, USA).

Our laboratory independently identified this artefact, and subsequently found similarities with other laboratory descriptions of this finding.[1–3] Laboratory staff were alerted to the issue by the presence of white flakes suspended in fluid contained within Receptal liner bags (Fig. 1). Empty liner bags were flushed with saline and cytospins and cell blocks prepared to support the hypothesis that the material was a contaminant. The artefact is generally abundant, staining purple on Papanicolaou stain, with sharp to soft fibrillary edges and multiple central laminations (Fig. 2A). In contrast, true mucin is pale blue to orange on Papanicolaou stain (Fig. 2C), and has hazy, ill-defined edges without laminations (Fig. 2C,D). In cell block preparations, the artefact has a less defined, dispersed and bubbly appearance (Fig. 2B).

Cytological assessment of peritoneal fluid is important for identification of intraperitoneal spread of malignant cells. The presence of abundant extracellular mucin is a significant abnormal finding in peritoneal washings.[1] The exogenous artefact described above can lead to misdiagnosis by obscuring diagnostic material or by mimicking extracellular mucin. Van

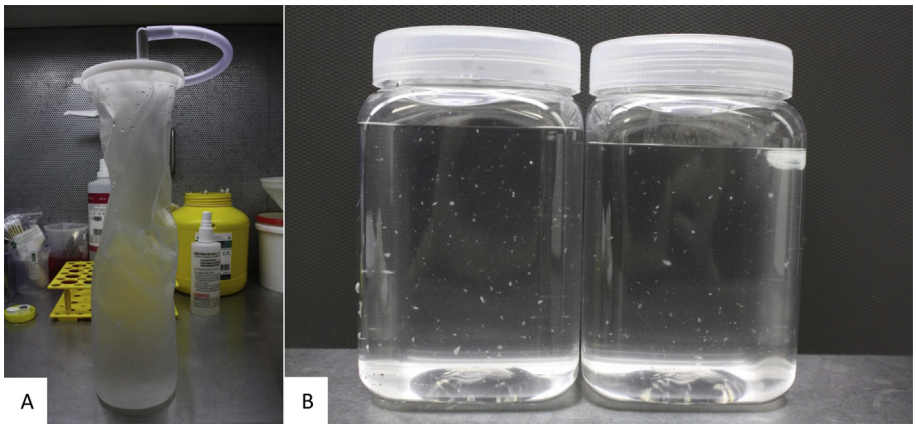

Fig. 1 (A) Receptal suction canister liner bag. (B) White flakes suspended in fluid from liner bag.

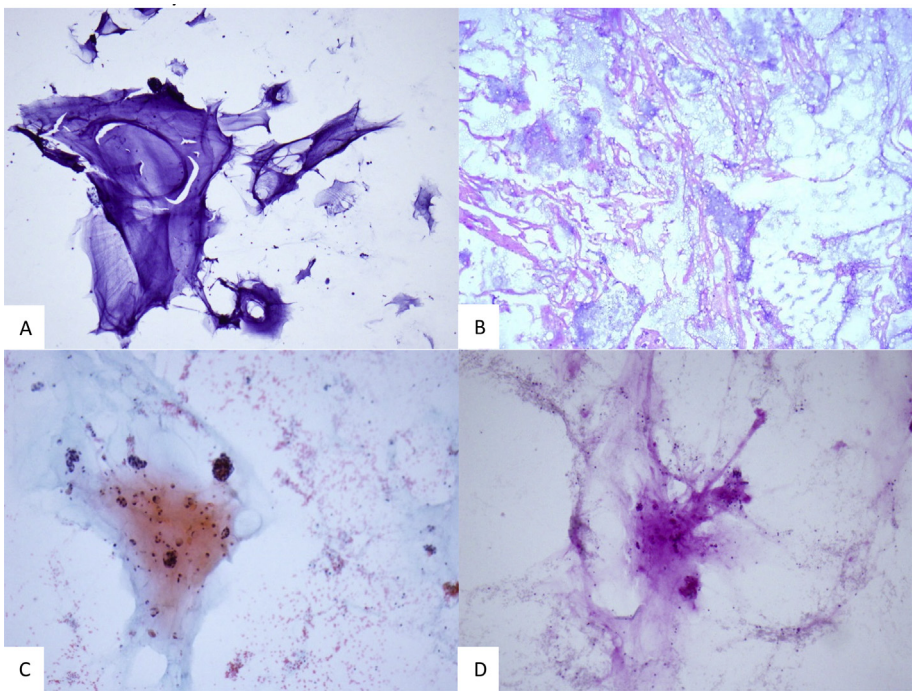

Fig. 2 Comparison of artefact and true mucin on cytology preparations. (A) Cytospin (Papanicolaou stain) and (B) cell block (H&E) preparations showing mucin-like artefact (peritoneal washings from a 69-year-old female who underwent hysterectomy for atypical endometrial hyperplasia). (C) Papanicolaou and (D) periodic acid–Schiff smears showing true extracellular mucin (peritoneal washings from a patient with ovarian mucinous adenocarcinoma).

der Griend *et al.*[2] identified this artefact in Lifehealthcare Serres liner bags. Quinn *et al.*[3] tested Vacsax branded liner bags and tubing by agitating warm and cold saline, and preparing cytospin preparations. The artefact was encountered only in the saline obtained from the liner bags, not the tubing.

Raising awareness of this distinct artefact in cytology specimens obtained from suction canister liner bags is important for the cytologist and cytopathologist to avoid misinterpretation. Knowledge of the artefact makes it readily identifiable in the setting of discordance with the other cytological findings and clinical features; however, it could be problematic when the clinical setting of excluding intra-abdominal mucin is less certain. Our findings highlight the artefact is not limited to the collection devices previously described. Identification of such artefact should prompt discussion between the laboratory and surgical theatre to explore the use of alternative collection containers.

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Insidious *plumbum*

Sir,

As a department we frequently report blood lead concentrations to the Chief Health Officer, however a recent case of familial lead toxicity has caused great concern. A clinician reported that a local family of six, including four children ranging in age from 3 months to 16 years, had been referred for management of lead toxicity and wanted our input. This prompted a review of the literature pertaining to lead toxicity where we uncovered some concerning facts.

The index patient was an 8-year-old child who was seen by her primary care physician due to difficulty with maintaining focus at school and disruptive behaviour. Her physical examination, including neurological examination, was unremarkable. She had no physical symptoms of concern. Her physician requested laboratory investigations including a blood lead level.

The child was iron replete with a normal thyroid stimulating hormone concentration. Her blood lead was significantly elevated at 11.6 µg/dL (0.560 µmol/L). A blood film was not initially requested. She was referred to a paediatrician at a nearby hospital for further management and a statutory notification was made to the Chief Health Officer of Queensland as is required for blood lead levels greater than 5 µg/dL (0.241 µmol/L).