tion of thyroid nodules, but 15–30% of aspirates are classified as indeterminate. BRAFV600E activating mutations are absent in benign neoplasms and highly specific for papillary thyroid cancer. The use of molecular testing for BRAFV600E mutations may confirm malignancy and help plan surgery in these cases.

Methods: This study aimed to elucidate the prevalence of BRAFV600E mutations in Thy2–5 categories and evaluate the usefulness of the test for the multidisciplinary team.

Sixty-six thyroid fine needle aspiration samples were analysed from 58 patients. Genomic DNA was extracted and amplified by polymerase chain reaction and analysed using pyrosequencing. The hypothesis was that the test would enhance the sensitivity of fine needle aspiration cytology and guide preoperative management.

Results: BRAFV600E mutations (c.1799T>A) were detected in 12.5% of Thy2 (non-neoplastic), 14.3% of Thy3 (neoplasm possible), 75% of Thy4 (suspicious for malignancy) and 50% of Thy5 (malignant) cytological categories.

Conclusions: The results showed that BRAFV600E molecular testing reduces false negative diagnoses by detecting malignancy in the Thy3 category and helps the multidisciplinary team to plan surgery in these patients. This test also detects malignant nodules in Thy2 patients who may otherwise remain undiagnosed. Adjunct BRAFV600E molecular testing increases the sensitivity of cytopathological diagnosis of fine needle aspiration samples.

Pneumatosis cystoides intestinalis with pneumoperitoneum in a renal transplant patient

A 68-year-old man presented to accident and emergency with a 3-week history of diarrhoea and vomiting. He had received a cadaveric (donor after cardiac death) cytomegalovirus positive kidney transplant for polycystic kidney disease a year previously and was given valganciclovir in the post-transplant period. His renal function was stable, and he was taking prednisolone, ciclosporin and low dose mycophenolate mofetil.

A stool sample was positive for norovirus. The abdominal X-ray showed retroperitoneal air (*Figure 1*) which was confirmed on computed tomography (*Figure 2*).

Serum cytomegalovirus was undetectable and colonoscopy did not show any cytomegalovirus colitis. A diagnosis of pneumatosis cystoides intestinalis was made and the patient was treated conservatively with successful resolution of findings despite the presence of pneumoperitoneum (Wayne et al, 2010).

Immunosuppression is one of the more common causes of pneumatosis (Ammons et al, 1986). It has been suggested that steroid therapy and immunosuppressed states lead to the depletion of Peyer patches, resulting in loss of structural integrity of the bowel wall (Chelimsky et al, 2003). Concomitant infection in these patients increases the risk of pneumatosis intestinalis. BJHM

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Figure 1. Free intraperitoneal, retroperitoneal and intramural air in and around the small and large bowel.

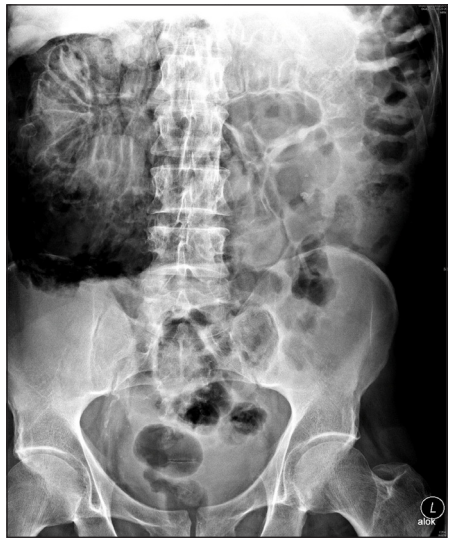
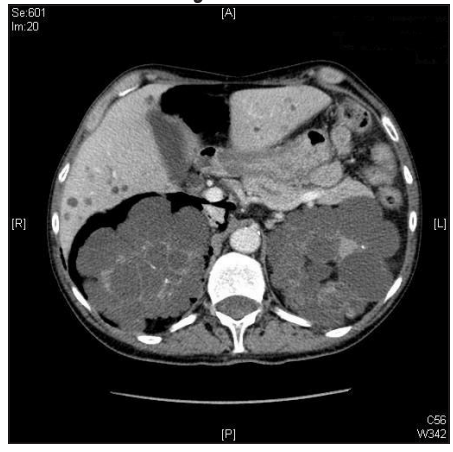


Figure 2. The 'bubbly' distribution of the pneumatosis retroperitoneally around the kidneys is indicative of a benign cause.



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