A 37-years-old male presented with fever, weight loss and abdominal swelling for 3 months. Right iliac node biopsy showed B-cell lymphoma, unclassifiable with features intermediate between Burkitt’s lymphoma and diffuse large B-cell lymphoma. (A) Coronal views of baseline CT scan demonstrate large lower abdominal mass with contiguous bowel involvement. (B) Interim CT scan showed partial response with reduction in lower abdominal mass and retroperitoneal soft tissue. (C) Axial images of post-chemotherapy F18-FDG PET-CT scan showed hypermetabolic, cystic right pelvic lesion and non-avid retroperitoneal soft tissue in upper abdomen. (D) Follow-up PET-CT after 3 months re-demonstrated hypermetabolic right pelvic soft tissue with increase in SUV from 6.3 to 7.2. At laparoscopic appendectomy, histology confirmed dense acute and chronic appendiceal inflammation with no evidence of granuloma or lymphoma.

FDG is a glucose analogue retained in malignant and inflammatory cells exhibiting heightened glucose metabolism.¹ Acute or chronic inflammation, abscesses and lymphadenitis frequently give false positive results.² CT features can assist in accurate diagnosis of appendicitis.³ However, in the background of lymphoma, residual active disease could not be excluded. Histological diagnosis was essential for pertinent management. Recently, amino acid labelled PET tracer, ¹⁸F-fluoroethyl-L-tyrosine, is found to have lower uptake in inflammatory cells than tumours and has higher specificity for tumour diagnosis than FDG.⁴ Continued research is needed for improved diagnostic accuracy.

References