A case of Burkitt's lymphoma presenting as suspected acute appendicitis

Sir,

Appendicitis can often be a difficult diagnosis in children, as they may not present with classical symptoms and signs. A 14-year-old Caucasian boy presented with a 24-hour history of right iliac fossa (RIF) tenderness on the background of 10-day history of generalised abdominal pain. He had diarrhoea for a week along with a three-day history of vomiting and anorexia prior to admission. On examination, he was pyrexial (37.2°C) and a tender mass was palpated in the RIF. Blood tests revealed an elevated white cell count of 15.1 x 10^9/ l (range 5.4-14.5 x 10^9/ l) with an associated neutrophilia of 13.1 x 10^9/ l (range 1.5-8 x 10^9/ l). A diagnosis of acute appendicitis was made. At operation, a Lanz incision was made in the RIF and the appendix was found to be normal. On further exploration, a hard intraluminal mass was palpable in the caecum with a proximally distended, thick-walled terminal ileum. A provisional diagnosis of either adenocarcinoma or a lymphoma was made; a midline laparotomy was performed and the patient underwent a right hemi-colectomy and side-to-side ileo-colic anastamosis.

The histology confirmed a high Grade B cell Non-Hodgkin's lymphoma consistent with Burkitt's lymphoma in the ileal portion of the ileo-caecal valve protruding into the colon. The patient was transferred to a specialist paediatric oncology unit where a full body computerised tomography (CT) scan and a trephine bone marrow biopsy were performed. These were both found to be normal. He made a full postoperative recovery and underwent chemotherapy.

Non-Hodgkin's lymphoma is the most common malignant tumour of the bowel in children older than five years and Burkitt's lymphoma accounts for three per cent of all childhood lymphomas.[1,2]

Burkitt's is a subtype of Non-Hodgkin's lymphoma and was first described by Dr. Burkitt in African children, thought to be more susceptible to the Epstein Barr Virus post-chronic malaria.[3] This is known as the *endemic* variant and occurs in equatorial Africa. This disease characteristically involves the jaw or other facial bone, distal ileum, cecum, ovaries, kidney or the breast. The *sporadic* type of Burkitt's lymphoma is predominantly found in the Western world, mainly affecting the small bowel and is also associated with reduced immunity.

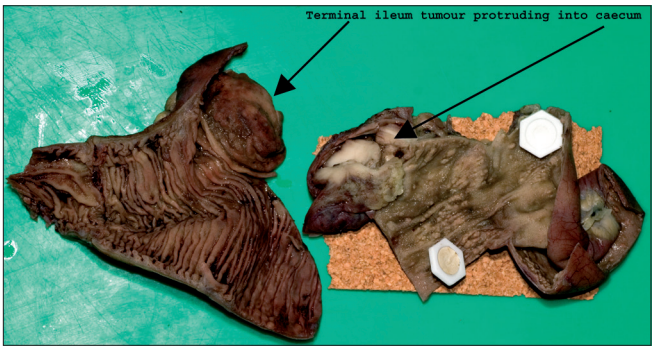


Figure 1: Terminal Burkitt's lymphoma

These tumour cells have a similar appearance to the cancer cells of classical African or endemic Burkitt's lymphoma. Clinically, patients may present with a rapidly growing intra-abdominal tumour and symptoms of bowel obstruction, intussusceptions or appendicitis.[4,5] Even though at operation the mass was felt to be in the caecum, pathologically it was confirmed to be in the terminal ileum with protrusion into large bowel, in keeping with Burkitt's lymphoma [Figure 1].

Appendicitis can often be a difficult diagnosis in children and this case is particularly interesting as this condition is rare in Caucasian children. A patient with a palpable mass in the right iliac fossa in the absence of a prolonged history of associated pain should alert the clinician of the possibility of this rare condition. It also highlights that a thorough investigation of the large and small bowel, particularly when a normal appendix is found, is very important.

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REFERENCES

1. Greif F, Burstein Y, Hammer B. Burkitt's lymphoma protruding through the anus: Report of an unusual case. Dis Colon Rectum 1988;31:629-31.

2. Bethel CA, Bhattacharyya N, Hutchinson C, Ruymann F, Cooney DR. Alimentary tract malignancies in children. J Pediatr Surg 1997;32:1004-8; discussion 1008-9.
3. Burkitt D. A sarcoma involving the jaws in African children. Br J Surg 1958;46:218–23.
4. Esposito S, Esposito A, Bonelli N, Pavesi MA, Guerci S, Nicolini A, Plebani A, Prinicpi N. An atypical complication of Burkitt's lymphoma of the small bowel. Italian Journal of Paediatrics 2003;29:229-31.
5. Biswas S. Report of a case of abdominal Burkitt's lymphoma presenting as localised right iliac fossa pain mimicking acute appendicitis. The Internet Journal of Surgery 2007;9:1.