

# Arthralgias, acute abdomen and foot drop

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## Abstract

**A patient presented with abdominal pain, malena, and right-sided foot drop. A laparotomy had to be performed subsequently due to distension of the abdomen with air under the right hemi-diaphragm. Specimens of necrotic patches of the ileum revealed polyarteritis nodosa. The differential diagnosis and treatment in Nepal are discussed.**

*Keywords: Abdominal pain; malena; foot drop; polyarteritis nodosa.*

A 50-year old man with 7 years of intermittent joint pain, 8 days of fever and abdominal pain with black stool presented to the emergency room. He also had a history of right facial weakness of long standing. He was on ibuprofen for arthralgias and norfloxacin for a possible urinary tract infection.

On examination he was nervous, had a pulse of 120, BP 120/90, temp of 100F. There was right lower quadrant tenderness with no malena on rectal examination. Neurologically he was oriented but he had diminished power with an obvious foot drop on the right side. His deep tendon reflexes were symmetrically diminished. The carotid pulsation was feeble on the right and the tibialis posterior and dorsalispedis pulsation were missing on the left side. His lab values revealed haemoglobin of 13.2 G, a total count of 12.9, with 90% neutrophils but no eosinophils. ESR was 100 mm. The urine showed 5-7 WBC, over 100 RBC and 2+ protein. Creatinine was 176 umol/L and Na was 140 Mmol/L and K 5 Mmol/L.

The next day in the hospital, he developed a distended abdomen with air under the right hemidiaphragm. The tentative diagnosis was perforation of the duodenum, secondary to NSAID ingestion for arthritis. At surgery, findings revealed a hole in the terminal ileum with multiple necrotizing areas in the jejunum and ileum. 0.3m of necrotizing lumen was removed.

With the initial nonspecific complaints of arthritis, myalgia and signs of mononeuritis multiplex (foot drop), renal involvement, and bowel infarction, a vasculitis picture emerged. The patient was treated with prednisone 60 mg two times per day.

In the next two days more malena ensued, a fiberoptic endoscopy revealed no fresh blood in the stomach or duodenum; but a second laparotomy was performed due to continual bleeding, which revealed 3-4 new patches of necrotic small bowel and this time 0.6 meter of the small intestine was removed. The biopsy revealed segmental lesions of inflammatory cells completely occluding the lumen at bifurcation of small sized arteries – typical of polyarteritis nodosa<sup>1</sup> - in the ileum. The lumen of the intestine was destroyed in places. One day after the second surgery, the patient had more malena, went into shock and could not be resuscitated.

Polyarteritis is a systemic disease the symptoms of which derive from damage to and occlusion of small and medium sized arteries.<sup>2</sup> The pathogenesis maybe related to an immune response against either endothelial cells or foreign antigens present on the endothelial cells and may serve as an initiating event leading to vessel injury. Infections by hepatitis B (not found in this patient) is thought to be one possible cause of the initiating event.

As was true in the patient, the diagnosis of polyarteritis nodosa maybe delayed because of the nonspecific nature of the

patient's symptoms. In Nepal, common infectious etiologies like Pig-Bel (necrotising enterocolitis)<sup>3</sup> typhoid perforation and tubercular perforation of the intestine were strongly considered but the history, the spectrum of physical findings and finally the histological report made these untenable.

There was no lung involvement which made Churg Strauss and Wegners highly unlikely.<sup>1</sup> Henoch Scholens Purpura, another vasculitis illness often seen in adults in Nepal, was not considered as there was no purpuric lesions in this patient, although purpuric lesions can be one of the signs of polyarteritis nodosa.

The addition of cyclophosphamide was being considered as this is reported to be very helpful in patients with polyarteritis nodosa with visceral infarction.<sup>1</sup> However, before the decision was taken to add the alkylating agent, the patient succumbed to the relentless nature of his illness. This patient was also a reminder to enlarge the differential to always include non infectious diseases even in communicable settings like Nepal.

## References

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