VWS Wong 黃煒燊
WK Leung 梁偉強
KF To 杜家輝
JJY Sung 沈祖堯

Diarrhoea and rash in a retired farmer

退休農民腹瀉及皮疹病例

An 83-year-old retired farmer developed invasive strongyloidiasis after using potent topical corticosteroids. Initial colonoscopy features mimicked ulcerative colitis, and the clinical course was complicated by bacterial septicaemia with *Serratia* and *Enterococcus*. He was treated successfully with oral ivermectin and antibiotics.

一名 83 歲退休農民接受烈性局部皮質類固醇治療後出現侵略性糞圓線蟲病。初步結腸鏡檢查顯示類似潰瘍性結腸炎的病徵，且在臨床治療中發現患者兼有沙雷氏菌及腸球菌的細菌敗血症，患者遂以口服伊維菌素及抗生素成功治療。

Case report

An 83-year-old retired farmer presented to a regional hospital in February 2005 with a 4-week history of diarrhoea. He had passed loose stool with mucus for up to 10 times per day prior to admission. There was no blood in stool, no abdominal pain, and no fever. He enjoyed good past health apart from eczema 1 year ago, for which he was treated with regular topical clobetasol cream (Dermovate; GlaxoSmithKline, Uxbridge, United Kingdom). There was no significant drug or travel history prior to the onset of diarrhoea. He had been a farmer in Hong Kong until retirement 20 years ago. Physical examination revealed mild dehydration and a maculopapular rash over his trunk and legs. His abdomen was soft and non-tender and there were no cushingoid features. Peripheral white cell count was 8 x 10^9 /L with 18% eosinophils. Stool tests for bacterial culture, amoeba, and *Clostridium difficile* toxin were negative. Colonoscopy showed pancolitis with multiple superficial ulcerations. Histological examination showed infiltration of the colonic lamina propria with neutrophils and lymphocytes, and focal abscesses. He was initially treated for ulcerative colitis with intravenous hydrocortisone 100 mg every 8 hours. He was transferred to our hospital 1 day later after failing to show any improvement. Further stool examination and review of colonic biopsy specimens revealed *Strongyloides stercoralis* rhabditiform larvae (Fig). The patient was then treated with oral ivermectin 9 mg daily for 8 days until two stool samples were negative. A subsequent short Synacthen test confirmed adrenal suppression secondary to potent topical steroids (serum cortisol rose from 381 to 457 nmol/L) and maintenance hydrocortisone replacement therapy was prescribed. The clinical course was also complicated by an episode of *Serratia* and *Enterococcus* septicaemia, presumably due to intestinal transmural migration of bacteria.[1] He made an uneventful recovery after appropriate antibiotic treatment and supportive management.

Discussion

Strongyloides stercoralis is a soil-transmitted nematode that enters

Key words:
Colitis, ulcerative;
Inflammatory bowel disease;
Strongyloides stercoralis*;*
Strongyloidiasis;
Ulcerative colitis

關鍵詞：
結腸炎，潰瘍性的；
炎性腸病；
糞圓線蟲；
糞圓線蟲病；
潰瘍性結腸炎

Hong Kong Med J 2005;11:397-8

The Chinese University of Hong Kong, Prince of Wales Hospital, Shatin, Hong Kong:
Department of Medicine and Therapeutics
VWS Wong, MB, ChB, MRCP
WK Leung, FRCP, MD
JJY Sung, MD, FHKAM (Medicine)
Department of Anatomical and Cellular Pathology
KF To, MB, ChB, FRCPA

Correspondence to: Dr WK Leung (e-mail: wkleung@cuhk.edu.hk)

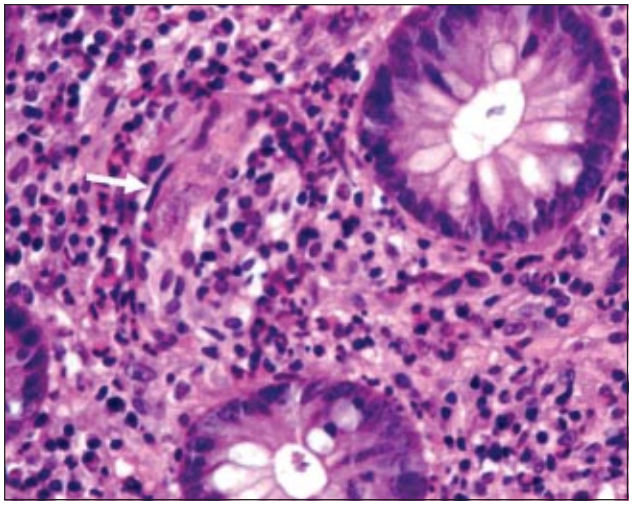

Fig. Colonic biopsy of an 83-year-old retired farmer with *Strongyloides* hyperinfection: degenerative larva was found (arrow)

humans transcutaneously. It then migrates to the small bowel, in some cases through the classic pulmonary route.[2] Chronic *Strongyloides* infection is often asymptomatic, but hyperinfection presents as a syndrome of accelerated autoinfection typically seen in immunocompromised patients. Although systemic corticosteroid treatment is frequently associated with *Strongyloides* hyperinfection, this is the first report of hyperinfection secondary to topical steroid use. Because this patient received systemic steroid for only 1 day, it is unlikely to account for the hyperinfection and adrenal suppression. The clinical presentation of hyperinfection can be non-specific but includes development or exacerbation of gastro-intestinal and pulmonary symptoms together with the detection of increased numbers of larvae in stool and/or sputum.[3] Delay in diagnosis is not uncommon and mortality can exceed 50%.[4] A high index of suspicion is therefore necessary to ensure prompt diagnosis and prescription of appropriate anti-parasitic treatment.

Strongyloides infection may also manifest with dermatological features. The rash is usually serpiginous with track formation, and is often localised to the feet. The skin rash of our patient was probably due to eczema only.

References

1. Link K, Orenstein R. Bacterial complications of strongyloidiasis: *Streptococcus bovis* meningitis. South Med J 1999;92:728-31.
2. Mansfield LS, Alavi A, Wortman JA, Schad GA. Gamma camera scintigraphy for direct visualization of larval migration in *Strongyloides stercoralis*–infected dogs. Am J Trop Med Hyg 1995;52:236-40.
3. Keiser PB, Nutman TB. *Strongyloides stercoralis* in the immunocompromised population. Clin Microbiol Rev 2004; 17:208-17.
4. Siddiqui AA, Berk SL. Diagnosis of *Strongyloides stercoralis* infection. Clin Infect Dis 2001;33:1040-7.