A case of lower leg skin rash and severe arthralgia

Kazutaka Yoshinaga,¹ Daiki Morikawa,¹ Gautam A Deshpande,² Eiji Hiraoka¹

¹Department of Internal Medicine, Tokyo Bay Urayasu Ichikawa Medical Center, Urayasu, Chiba, Japan
²University of Hawaii, Honolulu, Hawaii, USA

Correspondence to
 Dr Eiji Hiraoka,
 eijih@jadecom.jp

Accepted 3 June 2015

DESCRIPTION

A 23-year-old previously healthy man was in his usual state of good health until 5 days prior to admission when he noted fever of 38.0°C, cough, rhinorrhoea and sore throat. Two days prior to admission, he developed a symmetrical painful rash over the lower extremities, and bilateral arthralgia in his knees and ankles. Over the ensuing 48 h, palpable purpura developed over the bilateral buttocks, lower legs and thighs (figure 1). He subsequently presented to our outpatient clinic and was admitted for inability to walk due to severe bilateral knee and ankle pain. Swelling in the knees and ankles was not noted. Owing to the history of prior upper respiratory tract infection symptoms, arthralgia and palpable purpura,

Figure 1 The patient had a symmetrical rash over the lower extremities.

Figure 2 CT scanning of the abdomen showed diffuse duodenal and jejunal oedema and thickening, demonstrating target sign (white arrows).

Henoch-Schönlein purpura (HSP) was suspected. Three days after admission, severe colicky abdominal pain and appetite loss developed, along with an increase in white cell count (12 400/μL) and C reactive protein (8.52 mg/dL), precluding oral dietary intake. CT scanning of the abdomen revealed diffuse duodenal and jejunal oedema and thickening, as well as target sign, consistent with intestinal vasculitis (figure 2, white arrows).¹ Upper gastrointestinal endoscopy showed multiple erosions in the duodenum, also consistent with intestinal vasculitis (figure 3, white arrows).¹ Histopathological examination of a skin lesion biopsy revealed leucocytoclastic vasculitis, compatible with Henoch-Schönlein purpura. Platelet count remained normal, as did serum creatinine and urinalysis. Blood cultures and urine cultures were negative, as were multiple immunological studies, including antineutrophil cytoplasmic autoantibody. The patient was treated with methylprednisolone (80 mg/day), which was tapered successfully. His condition improved and he was doing well at follow-up 2 months after the onset of his illness.

Figure 3 Endoscopy showed multiple erosions in the duodenum (white arrows).

To cite: Yoshinaga K, Morikawa D, Deshpande GA, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-210714

Gastrointestinal involvement occurs in about 48% of adult-onset HSP cases.² Though gastrointestinal symptoms usually develop within 1 week after the onset of the rash, they are the first manifestation in 8% of cases, and may be associated with life-threatening complications, including intussusception, infarction and perforation.² Abdominal CT scans often show

wall thickening with a target sign, as well as engorgement of mesenteric vessels with a comb sign, suggesting vasculitis.² Endoscopic findings include diffuse mucosal erythema, petechiae, haemorrhagic erosions and ulcers, commonly in the duodenum and ileum.¹ Treatment with corticosteroids, plasmapheresis or intravenous immunoglobulin, is typically required in the setting of severe gastrointestinal involvement,^{2 3} randomised trials addressing respective efficacy of these treatment options are lacking. Physicians should be aware of the physical and radiological signs of HSP in order to initiate early treatment.

Learning points

- ▶ Gastrointestinal involvement is common in Henoch–Schönlein purpura (HSP), usually when occurring within 1 week of the onset of rash. Severe cases can be life-threatening, requiring early diagnosis and treatment.
- ▶ Pathology of gastrointestinal manifestation of HSP includes submucosal haemorrhage and oedema due to vasculitis.
- ▶ A patient presenting with lower extremity rash and abdominal pain should lead to prompt consideration of HSP. Skin biopsy, abdominal CT scanning and colonoscopy are helpful to confirm the diagnosis.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Hokama A, Kishimoto K, Ihama Y, *et al.* Endoscopic and radiographic features of gastrointestinal involvement in vasculitis. *World J Gastrointest Endosc* 2012;4:50–6.
- 2 Jithpratuck W, Elshenawy Y, Saleh H, *et al.* The clinical implications of adult-onset Henoch-Schönlein purpura. *Clin Mol Allergy* 2011;9:9.
- 3 Sharma A, Wanchu A, Kalra N, *et al.* Successful treatment of severe gastrointestinal involvement in adult-onset Henoch-Schönlein purpura. *Singapore Med J* 2007;48:1047–50.

Copyright 2015 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow