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# Shingles following infliximab infusion

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Infliximab is a chimeric IgG1κ monoclonal antibody that binds specifically to human tumour necrosis factor alpha (TNFα). Infliximab, in combination with methotrexate, is approved for reducing signs and symptoms and inhibiting the progression of structural damage in patients with moderately to severely active rheumatoid arthritis who have had an inadequate response to methotrexate. It will also reduce the signs and symptoms of Crohn's disease in patients with moderately to severely active Crohn's disease who have had an inadequate response to conventional treatment and will reduce the number of draining enterocutaneous fistulas in patients with fistulising Crohn's disease.<sup>1,2</sup> Owing to its mechanism of action infliximab can lead to a number of complications.

## CASE REPORT

Here we report a case of shingles, an infectious complication, currently not included in the product labelling.

A 45 year old man with steroid dependent Crohn's disease presented to the outpatient clinic with an acute flare up. At that time he had already been receiving 150 mg of azathioprine and 1000 mg mesalamine by mouth three times a day for about 17 months. Prednisolone had been tapered to 5 mg a day. High resolution intestinal ultrasound showed a subtotal small bowel stenosis. Power Doppler demonstrated mucosal hyperaemia, suggesting an inflammatory process.

It was therefore decided to switch his treatment to infliximab. His condition slightly improved, but after the third course of 5 mg/kg bodyweight infliximab he developed a painful, pustular skin rash on the left side of his chest involving several dermatomas. Varicella zoster IgM titres were raised, confirming an acute shingles infection. He was treated intravenously with 5 mg/kg bodyweight acyclovir every eight hours for seven days. He recovered and was later referred for surgery to resect the inflamed segment.

## DISCUSSION

Adult varicella can be a severe illness complicated by pneumonia, encephalitis, hepatitis, thrombocytopenia, and prolonged fever.<sup>3</sup> Blood levels of TNFα have been shown to be

raised in patients with acute varicella infection.<sup>4</sup> In vitro studies have shown that replication of varicella zoster virus and varicella zoster virus antigen expression are inhibited by TNFα and that this antiviral activity can be completely blocked by monoclonal antibodies against TNFα.<sup>5</sup>

The use of monoclonal antibodies against TNFα in patients with inflammatory bowel disease increases the risk of viral infections by inhibiting an adequate TNFα response. Doctors should be cautious when prescribing infliximab for patients who are already receiving immunosuppressant drugs. We suggest that varicella zoster virus infection should be included as an infectious complication in the drug labelling.

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