A CASE OF DISSEMINATED VARICELLA IN A PATIENT ON BIOLOGIC THERAPY BUT WITH PRIOR IMMUNITY: IMPLICATIONS FOR ADVICE AND MANAGEMENT FOLLOWING CONTACT WITH CHICKENPOX

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Background: Primary varicella zoster virus (VZV) infection causes varicella (chickenpox) with reactivation later in life causing herpes zoster (shingles). Varicella following a contact with the virus in patients with previous immunity is rare.

Methods: A case of varicella in an immunosuppressed patient with previous immunity is reported and treatment options discussed.

Results: A 33 year old woman presented to the Accident and Emergency Department with a 24-h history of vesicular rash on her trunk, arms and upper legs following contact with a child with chickenpox 3 weeks previously. She has a background of treatment-resistant IBD and connective tissue disorder for which she was taking adalimumab 40 mg s.c. weekly, prednisolone 10 mg OD, MTX 25 mg weekly and AZA 150 mg daily. Serology from 2010 showed immunity to varicella. Initial cardiovascular, respiratory and abdominal examinations were unremarkable, she was afebrile. Blood tests showed a lymphopenia (0.46), CRP of 10 mg/l, normal renal and liver function, serum IgG of 5 (6–16), IgA of 0.6 (0.8–2.8) and IgM of 1.3 (0.5–1.9). A working diagnosis of disseminated varicella with possible superadded bacterial pneumonia was made and treatment with i.v. acyclovir and oral clarithromycin (penicillin allergic) started. All immunosuppressive
medications were stopped. Vesicles were swabbed and sent for HSV PCR (negative) and VZV PCR (positive). She deteriorated clinically. CRP rose to 140 mg/l and a repeat chest X-ray showed diffuse nodular shadowing throughout both lung fields consistent with varicella pneumonia. Repeated IgG level was 4.7. Clarithromycin was switched to levofloxacin following advice from microbiology and a decision was made to treat with human normal immunoglobulin as per chapter 7 of the government immunoglobulin handbook. She subsequently made a gradual improvement and was discharged 9 days after admission. She soon developed a flare of colitis requiring reintroduction of immunosuppressive therapy.

Conclusion: Varicella in patients with prior immunity is rare but patients on immunosuppressive therapy are at increased risk. Such patients should be made aware of this possibility. Our patient may have been at increased risk because of hypogammaglobulinaemia, the incidence of which may be rising with increased use of combination DMARDS and sequential biologic therapy. Best practice following a varicella contact in patients with prior immunity remains unclear. Some manufacturers of biologics (including adalimumab) advise to withhold treatment following a significant contact. The immunoglobulin handbook advises against the use of VZV-specific immunoglobulin in immunosuppressed patients with detectable antibody but to consider the use of human normal immunoglobulin in patients with severe varicella disease in this setting.

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