Letter: tricky reactions to switch back from subcutaneous to intravenous vedolizumab in inflammatory bowel disease patients-authors' reply

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LETTER TO THE EDITOR

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Editors,

We read with great interest the letter by Richard et al[1] in relation to our recently published study reporting real-world experience of switching from intravenous (IV) to biweekly subcutaneous (SC) vedolizumab maintenance treatment for patients with inflammatory bowel diseases (IBD).[2] Richard et al reported seven (out of a total of 10) patients who switched back from SC to IV vedolizumab due to injection site reactions and then developed infusion reactions after IV vedolizumab administration.

In our series of 135 patients, eight switched back from SC to IV vedolizumab. Three patients switched back because of fear of needles; in all three, this did not result in adverse events (AEs). Five patients switched back to IV vedolizumab because of AEs: four due to erythema at the injection site and one due to headache, fatigue and abdominal pain (Table 1). One out of four patients with injection site reactions reported no AEs after the switch to IV vedolizumab. Two out of four patients with injection site reactions developed a mild allergic reaction (erythema). One patient experienced erythema only with the first repeat dose of IV vedolizumab, and one with the second and third infusion who did not have AEs thereafter as pretreatment with 100 mg IV hydrocortisone and 2 mg IV clemastine was successfully given from the fourth infusion onwards. One out of four patients developed acute cough, rhinorrhoea and dyspnoea that began during the seventh infusion. Pretreatment with 2 mg IV clemastine was of no benefit for this patient who was the only one who had to discontinue IV vedolizumab. One patient reported headache, fatigue and abdominal pain, which was similar during the original IV infusions and during SC vedolizumab.

Data on prophylactic treatment for biologic drug reactions are scarce. The use of hydrocortisone with vedolizumab infusion reactions has been reported.[3] Corticosteroid (pre-)treatment has been suggested for anti-tumour necrosis factor-related adverse reactions.[4,5] Antihistamine pretreatment has been successful in hypersensitivity reactions to natalizumab.[6] In our cohort, one patient benefitted from pretreatment with both IV hydrocortisone and an antihistamine.

In conclusion, we confirm that patients with AEs due to SC vedolizumab who switch to IV administration are at risk of developing AEs while receiving IV vedolizumab. Further studies with larger patient numbers are needed to assess the value of pretreatment in preventing AEs when switching back from SC to IV vedolizumab.

AUTHOR CONTRIBUTIONS

Adriaan Volkers: Conceptualization (equal); data curation (equal); formal analysis (equal); visualization (equal); writing – original draft (equal). **Tessa Straatmijer:** Conceptualization (equal); data curation (equal); formal analysis (equal); visualization (equal); writing – original draft (equal). **Marjolijn Duijvestein:** Supervision (equal); writing – review and editing (equal). **Mark Löwenberg:** Supervision (equal); writing – review and editing (equal). **Andrea van der Meulen:** Supervision (equal); writing – review and editing (equal). **Geert D'Haens:** Supervision (equal); writing – review and editing (equal).

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LINKED CONTENT

This article is linked to Volkers et al papers. To view these articles, visit https://doi.org/10.1111/apt.17153 and https://doi.org/10.1111/apt.17395

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Adriaan Volkers, Tessa Straatmijer, Andrea van der Meulen and Geert D'Haens shared last and first author.

TABLE 1 Characteristics of patients who discontinued SC vedolizumab due to AEs and switched back to IV vedolizumab.

IBD type	Montreal classification	Reaction to SC VDZ	Reaction to IV VDZ after switch back	Additional info	VDZ discontinuation
CD	L3B1	Erythema at injection site	No reaction		No
CD	L1B3	Erythema at injection site	Erythema at former SC injection sites	Only reaction during first infusion	No
UC	E2	Headache, fatigue and abdominal pain	Headache, fatigue and abdominal pain	Same AEs as with the first time IV VDZ and with SC VDZ	No
UC	E3	Erythema at injection site	Erythema at former SC injection sites	Pretreatment with IV hydrocortisone and clemastine before IV VDZ	No
UC	E3	Erythema at injection site	Cough, rhinorrhoea and dyspnoea	AE occurred from infusion 7 and onwards, despite clemastine (pre-) treatment	Yes

Abbreviations: AE, adverse event; B1, inflammatory; B2, stenosing; B3, penetrating; CD, Crohn's disease; conc., concentration; E2, left-sided; E3, pancolitis; IBD, inflammatory bowel diseases; IV, intravenous; L1, ileal; L2, colonic; L3, ileocolonic; p, peri-anal disease; SC, subcutaneous; UC, ulcerative colitis; VDZ, vedolizumab.

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