

Figure 1. Mesothelial cell with cytopathic changes suggestives of herpes virus infection.

while our patient had low IgG (1.76 g/L) and IgA (0.28 g/L). We could speculate that humoral dysfunction related to rituximab therapy could have caused loss neutralization of free viral particles by specific antibodies, facilitating initial dissemination of the VZV but this hypothesis needs to be investigated further.

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### Key words

Rituximab, visceral varicella-zoster infection, lymphoma.

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# Cyclosporine treatment of acquired hemophilia due to factor VIII antibodies

Acquired hemophilia, caused by autoantibodies against coagulation factor VIII, is usually treated with steroids, cyclophosphamide, intravenous gammaglobulins and sporadically other drugs. We describe the case of a patient in whom the common therapeutic choice was unsuccessful, but cyclosporine proved to be effective.

#### Sir

A 56-year old man with chronic obstructive pulmonary disease was admitted because of hemoptysis. There was no evidence of malignancy, tuberculosis or autoimmune disorders. The patient did not take any new drug before admission. Routine coagulation tests showed repeatedly a prolongation of the activated partial thromboplastin time (to 63.7 sec, upper normal value 37 sec). This was due to a decrease of factor VIII:C to 0.04 IU/mL with an antibody level against factor VIII of 40 Bethesda units/mL. An acquired von Willebrand syndrome was excluded (vWF:Ag of 2.38 IU/mL, vWF:Rco of 1.23 IU/mL). Treatment during 3 months with prednisone (initially 1 mg/kg/day) and cyclophosphamide 50 mg p.o. daily, followed by i.v. gammaglobulins (0.4 g/kg/day for 5 days) had no influence on the presence of the antibodies. Later on a subcutaneous hemorrhage in the left arm and bleeding in the sural muscles of the right leg occurred. During that period recombinant activated factor VII was successfully administered. After initiation of cyclosporin, the antibodies against factor VIII progressively decreased and finally disappeared. The treatment was stopped after eight months. The coagulation tests remained normal. Spontaneously acquired antibodies against factor VIII are infrequent. They peak in the third and seventh decades.<sup>1</sup> Intramuscular bleeds are the most common hemorrhagic manifestation. The major cause of acquired antibodies against factor VIII, excluding hemophilia, are autoimmune disorders,

malignant diseases, pregnancy or drug reactions. In about 50% of the cases no underlying disease can be identified. The prognosis is poor if untreated. Spontaneous disappearance of the inhibitor has been reported, but after a long delay. Acute bleeding peri-ods can be treated with recombinant activated factor VII, as in hemophiliacs with inhibitors. Alternatives include large doses of factor VIII, a porcine factor VIII, prothrombin complex concentrates (PCC) and activated PCC. The most frequently used treatments for elimination of the antibodies include oral corticosteroids and cyclophosphamide. A high dose of i.v. gammaglobulins can also be effective.<sup>2</sup> The alternatives are interferon, a combination of steroids, cyclophosphamide and vincristine, or combination chemotherapy. The effect of replacement therapy or removing antibodies by plasmapheresis is only transient.<sup>2,3</sup> The experience with cyclosporine shows that it might be effective in the treatment of acquired hemophilia with a high antibody titer against factor VIII.<sup>3</sup> Cyclosporine inhibits cell-mediated reactions and plays a role in the induction of immune tolerance against factor VIII. It does not affect hematopoiesis and causes fewer infectious complications.<sup>4</sup> This drug could be considered as a possible treatment of acquired hemophilia if other modalities fail.

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### Key words

Cyclosporine, acquired hemophilia.

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