Persistent Exit-Site “Infection” in a Peritoneal Dialysis Patient with Chronic Lymphocytic Leukemia

Editor:

We recently encountered an interesting case in our peritoneal dialysis (PD) unit. A 68-year-old woman on PD presented with hypergranulation tissue at the exit site (Figure 1) accompanied by redness, purulent discharge, and pain. Her medical history included chronic lymphocytic leukemia (CLL) since 2003, for which she had undergone spleen radiotherapy and chlorambucil treatment.

Oral flucloxacillin was initiated for a PD catheter exit-site infection. Repeated cultures of the exit site were negative. Because of insufficient clinical response even after a change in the antibiotic regime to amoxicillin-clavulanic acid, excision of the hypergranulation tissue at the exit site was performed 14 days after the initial presentation. Pathology examination of the tissue showed a dense mixed cellular infiltrate consisting of lymphocytes and neutrophils.

Because of this so-called persistent PD catheter exit-site infection, a new tunnel was created 1 week later, and tissue was sent for pathology examination. That examination revealed a mainly perivascular infiltrate of atypical lymphocytes. Immunohistochemistry showed strong expression of CD5, CD20 (Figure 2), and CD23, with CD3 negativity. The conclusion was that the hypergranulation tissue was compatible with CLL localization at the exit site and in the tunnel. Shortly after the new tunnel was created, the “infection” with hypergranulation tissue recurred at the new exit site. Treatment with chlorambucil was initiated (also because of pancytopenia

Figure 1 — Hypergranulation tissue with redness at the peritoneal dialysis catheter exit site.

Figure 2 — Dense dermal infiltrate of atypical lymphocytes, with strong expression of CD20 on immunohistochemistry (10× original magnification).

and lymphadenopathy), which improved healing at the exit site, supporting our suggestion that the “infection” with hypergranulation tissue was caused by the underlying CLL rather than by a smoldering culture-negative infection.

To our knowledge, this is the first report of CLL infiltration of the catheter exit site and tunnel in a PD

patient. The PD community should be aware of this possibility, especially with the aim of avoiding unnecessary long-term antibiotic use and delaying appropriate treatment.

DISCLOSURES

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