Storage histocyte disorders are inborn errors of metabolism caused by enzyme deficiencies. Gaucher’s disease is the most prevalent lysosomal storage disorder, but cells indistinguishable by light microscope examination from typical Gaucher cells (pseudo-Gaucher cells) have been observed in many hematologic and non hematologic disorders. We report a case of centrocytic nodular non Hodgkin’s lymphoma (NHL) in which pseudo-Gaucher cells were seen in bone marrow biopsy after systemic relapse.

**Clinical and laboratory findings**
A 28-year-old man with centrocytic nodular NHL according to the updated Kiel classification, stage III A, underwent complete remission after 6 cycles of a CHOP-like regimen. After three years the patient suffered lymph node relapse. During the staging examinations for relapse, bone marrow biopsy showed a paratrabeicular lymphomatous infiltration surrounded by numerous abnormal storage cells that strikingly resembled Gaucher’s cells (Figure 1). The patient was treated with the VACOP-B protocol and then submitted to consolidation therapy with autologous bone marrow transplantation (ABMT). Bone marrow biopsy performed after ABMT detected no lymphoma and the pseudo-Gaucher cells had also disappeared from the marrow specimen.

**Morphology and histochemistry**
We evaluated the morphology of a bone marrow biopsy after relapse. The bone marrow trephine specimen was embedded in glycol methacrylate resin (JB-4 Kit, Polysciences, Inc) and cut into 1.5 μm sections which were stained with Giemsa; PAS, silver impregnation and the Prussian blue reactions were carried out. The bone marrow trephine sections were normocellular with a paratrabeicular lymphocyte infiltration. Around the lymphoma proliferation there were abnormal pseudo-Gaucher-like storage cells (Figure 1). Light microscope examination revealed that these cells had a diameter of approximately 20-30 μm, pale cytoplasm with dense round deposits inside and a single eccentric nucleus (Figure 2).

The pseudo-Gaucher cells were positive for acid phosphatase after tartrate treatment (Figure 3); reticulin fibrosis was not prominent in the areas of the pseudo-Gaucher cells and the PAS, naphthol AS-D chloroacetate esterase and Prussian blue reactions were negative in these cells.

**Conclusions**
Pseudo-Gaucher cells have been described in several diseases, including hematologic disor-
Bone marrow pseudo-Gaucher cells in NHL

These cells had never been described in centrocytic nodular lymphoma. In our patient, there was no family history or evidence of inherited Gaucher’s disease, and serum β-glucosidase activity was elevated. Furthermore, the patient showed no signs of infectious disease. The disappearance of the pseudo-Gaucher cells after successful induction of complete remission indicates that these cells and the lymphomatous bone marrow proliferation were linked. As postulated by Zidar et al., and by Papadimitriou et al., these storage cells probably result from excessive cell breakdown due to malignant lymphoma cells or tumor necrosis. Thus in these cases there is a relative rather than a true deficiency of β-glucosidase, as occurs in inherited Gaucher’s disease.

References