

## Case Report

### A Case of Testicular Lymphoma

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#### Case

The patient was a 52-year-old man. He visited a urologic clinic because of a one-month history of scrotal swelling without local tenderness. He also complained of hyperesthesia in the face and right lower extremity. The left testis was hard and swollen to the size of a fist, while the right testis was of normal size. Neither lymphadenopathy nor hepatosplenomegaly was found. The laboratory findings showed no significant abnormality. Tumor markers of human chorionic gonadotropin,  $\alpha$ -fetoprotein and neuron specific enolase in serum were within normal range. Atypical lymphocytes were found in the cerebrospinal fluid. CT scan did not indicate any lymphoma involvement in the central nervous system. Atypical lymphocytes in lumbar puncture increased in number. Meningeal involvement of lymphoma cells was considered because of hyperesthesia in the face and lower extremity. The left testis was extirpated and weighed 157 grams. The cut surface was grayish white and solid. Microscopically, the testicular structure was replaced by proliferating tumor cells. In the marginal areas of the tumor, compressed hyalinized seminiferous tubules were observed and the tumor cells infiltrated into the surrounding tissue. No follicular growth pattern was noted. The tumor was mainly comprised of large cells and some medium-sized cells. Mitosis was occasionally found. On Giemsa-stained specimen, the large lymphoma cells had basophilic cytoplasm and round or oval nuclei containing prominent nucleoli. Many of them were compatible with centroblasts, while some appeared to be immunoblasts. The medium-sized cells had oval nuclei with one nucleolus and lightly stained cytoplasm, compatible with centrocytes. Tumor cells occasionally had PAS-positive granules which disappeared after treatment with diastase, and were

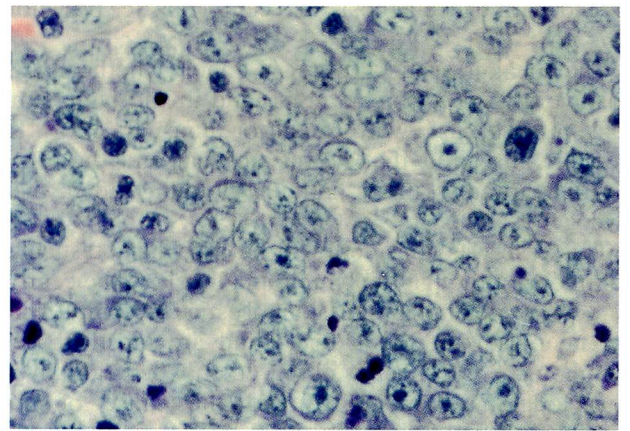


Fig. 1. Large lymphoma cells had basophilic cytoplasm and round or oval nuclei containing prominent nucleoli. Many of them were compatible with centroblasts and some of them were immunoblasts. Medium-sized cells compatible with centrocytes were also found. (Giemsa,  $\times 500$ )

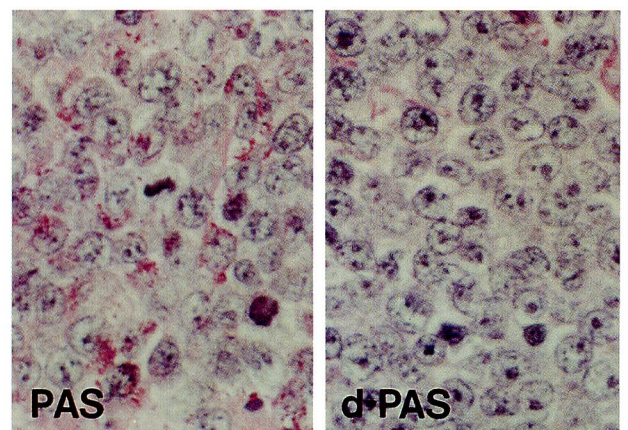


Fig. 2. PAS-positive granules were found in the cytoplasm of lymphoma cells (left) and the granules disappeared after treatment with diastase (right). (Left, PAS; and right, d-PAS,  $\times 500$ )

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considered to be glycogen. The tumor cells were immunohistochemically positive for L26, MB-1 and LCA but negative for UCHL1 and MT-1. Then, this lymphoma was diagnosed as "centroblastic" according to the updated Kiel classification and "diffuse, large cell type" according to the Japanese LSG classification. After chemotherapy, hyperesthesia disappeared and remission was maintained.

### Discussion and Comments

Two of 5 participants considered this lymphoma as "centroblastic", while the others considered it as "centroblastic/centrocytic", "immunoblastic" or "high-grade B-cell lymphoma". Prof. K. Lennert said that he agreed with the diagnosis of "centroblastic, polymorphic".

The speaker asked Prof. K. Lennert whether PAS-positive granules which were found in the lymphoma cells in this case were usual or unusual. Prof. K. Lennert answered that it was unusual and the PAS-positive granules might immunoglobulin rather than glycogen.

This case was considered to be a primary testicular lymphoma although the lymphoma involved the central nervous system on admission. Testicular lymphomas are neoplasms of the elderly<sup>1)</sup> and are mostly B-cell lymphoma<sup>2)</sup>. Glycogen is observed only occasionally in non-Hodgkin's lymphoma, and the cause of this glycogen accumulation could not be clarified; perhaps there was an enzyme defect<sup>3)</sup>.

**Key words:** Malignant lymphoma, Testis

### References

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