Pathological stage I<sub>E</sub> lymphoma of the testis treated by local surgery alone

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Summary
Testicular lymphoma is a rare tumour. Usually it is found in old men as part of a generalized lymphoma, and it carries a poor prognosis. We report a 30-year-old man with pathological stage I<sub>E</sub> lymphoma of the testis who has been successfully treated following staging laparotomy and splenectomy by radical orchidectomy alone. Localized testicular lymphoma is a small specific group with a good prognosis.

Introduction
Primary lymphoma of the testis accounts for 3% of non-Hodgkin's lymphoma (Duncan et al., 1980), and there are fewer than 200 case reports in the literature. Many of these later develop generalized lymphoma, so that exhaustive staging techniques are required to make sure that the disease is confined to the testis. 'True' primary lymphoma of the testis (stage I<sub>E</sub> on the Ann Arbor classification) accounts for only 10% of this total and fewer than 20 cases have been described. This report presents one such case in a young man who has been treated by local surgery alone and is disease-free after 21 months. Identification of this small but favourable group is important because local surgery alone may be as effective as combined therapy and carry less morbidity.

Case report
A 30-year-old Indian engineer was admitted in January 1980 with a 6-month history of a painless swelling in the left hemiscrotum. There was no history of trauma or infection. A left inguinal hernia had been repaired 8 years previously and as a child he had had malaria. On examination he was a fit man with a tense hydrocele. The right side was normal and there were no other abnormal findings. Fifty millilitres of straw coloured fluid was tapped from the hydrocele and cytology of the aspirate showed large numbers of mature lymphocytes. The underlying testis was then found to be enlarged and firm. Full blood count showed Hb 16-3 g/dl, WBC 6·8 × 10<sup>9</sup>/l, and the ESR was 1 mm/hr. Chest X-ray, liver function tests, alpha-fetoprotein, carcinoembryonic antigen (CEA) and β-human chorionic gonadotrophin (βHCG) levels were all normal.

Through a groin incision, a hard white testis measuring 4 × 3 cm was found and a radical orchidectomy was performed. Histology showed whorls of irregular cells with spindle forms and clusters of lymphocytes (Fig. 1). There was inflammation in the surrounding tunica and epididymis but no spread into the cord. These appearances were reviewed by testicular and lymphoma panels and classified as a malignant lymphoma with fibrifying tendencies of the diffuse histiocytic type.

In order to stage the disease accurately further investigations were carried out. Lymphangiography and isotope bone scan were normal, but computerized axial tomography (CAT) showed moderate splenomegaly. A staging laparotomy was then carried out. The spleen was slightly enlarged (315 g) but there were no abnormal lymph nodes. Histologically there was no evidence of lymphoma in the spleen, in a wedge liver biopsy or in a trephine marrow biopsy.

The patient made an uncomplicated recovery and 21 months later is disease free and has fathered a child. This represents a case of stage I<sub>E</sub> or 'true' primary lymphoma of the testis, which has been treated by orchidectomy alone.

Discussion
Although lymphoma of the testis is rare, several series have been reported in the literature. Part of the interest of this condition centres on whether the disease is primary or secondary (Gowing, 1964). Many previously reported cases apparently limited to the testis at the time of presentation had a 90% mortality rate within 2 years. Only with full pathological staging can true primary cases be identified (Kiely et al., 1970). In a recent series of six cases (Woolley et al., 1976) only two were stage I<sub>E</sub> and one of these was a long-term survivor. It was concluded that overall about 10% of so-called primary lymphoma of testis were localized to stage I<sub>E</sub>.

In general, non-invasive staging techniques are
preferred in the evaluation of non-Hodgkin's lymphoma, as the patients tend to be older than Hodgkin's cases and consequently there is higher morbidity and mortality. But in a younger patient such as ours, staging laparotomy is the most precise method of staging the disease. Chabner has proposed that it should be used whenever possible (Chabner et al., 1980). This would seem to be a logical and acceptable step in a younger patient such as this, and especially in one in whom a CAT scan showed distinct splenic abnormality.

Most testicular lymphomas are of diffuse histiocytic type, but a more favourable prognosis is suggested if there is hyalinization and nodularity (Talerman, 1977a,b). This mirrors similar favourable predictors found in Hodgkin's (Lukes, 1963) and non-Hodgkin's (Bennett and Miller, 1969) lymphomas.

This case is unusual as it presented in a young man with a hydrocele. It is also unusual because it has been treated by local surgery alone after a full staging laparotomy. We conclude that it is reasonable to treat primary testicular lymphoma, pathological stage Ia, by local therapy alone plus careful follow-up, and to reserve more aggressive therapy for more aggressive disease or for the treatment of relapse.

Acknowledgments
We are grateful to Dr A. B. Price for his advice on histology and to Dr M. H. Bennett and Dr R. C. B. Pugh for reviewing the histology on their panels.

References