centrations necessary to maintain peripheral tissue triiodothyronine concentrations may therefore suppress the release of thyroid stimulating hormone. Clearly thyroid stimulating hormone alone cannot be used to monitor the adequacy of replacement treatment in primary hypothyroidism, and so the dosage of thyroxine should be adjusted so that the free triiodothyronine concentration is within the normal range.

In patients with thyroid carcinoma suppression of thyroid stimulating hormone by thyroxine in doses of up to 400 μg daily is an important part of management; our results indicate that lower doses would be adequate to achieve such suppression. Assays of thyroid stimulating hormone concentration with a high sensitivity would show that thyroxine treatment suppresses basal thyroid stimulating hormone concentrations; such assays should render thyrotrophin releasing hormone tests unnecessary in these patients.

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(*Accepted 8 November 1984*)

Wessex Regional Department of Nuclear Medicine, Southampton General Hospital, Southampton SO9 4XY
R J MARDELL, BSC, senior biochemist

Department of Chemical Pathology, Milton Keynes District General Hospital, Milton Keynes MK6 5LD
T R GAMLEN, PHD, MRCP, chemical pathologist
M R J WINTON, FIMLS, chief medical laboratory scientific officer

Correspondence to: Mr R J Mardell.

Factors contributing to delay in diagnosis of testicular tumours

Close to 80% of patients who have malignant teratoma with no detectable metastases remain free from disease after orchidectomy alone[1-3]; in the remainder relapse is detected sufficiently early for most to be cured by chemotherapy. Some doctors, however, remain unaware that a delay in diagnosing testicular tumours affects the chance of long term cure and whether and how much chemotherapy is needed.

In this unit the average delay from the first symptom to diagnosis was found to have been two months in patients who remained free from disease after one year of follow up.[4] In those patients with metastases at diagnosis or after a period of surveillance who subsequently died of drug resistant disease the average delay in diagnosis was seven months, whereas in those with metastases cured by chemotherapy it was four months. Ninety three per cent of patients with less than one month's delay in diagnosis had no clinically obvious metastases at presentation whereas half of those with more than six months' delay had clinically palpable metastases. I have reviewed the histories of patients with prolonged delay in diagnosis of testicular tumours reported on previously[5] and present two illustrative histories to highlight the need to encourage early diagnosis.

Case reports

In 24 of 52 patients with teratoma and five of 12 patients with seminoma the delay in diagnosis was over six months. The table summarises the symptoms at presentation and the stage in the diagnostic process that produced the longest delay.

Case 1—A 26 year old man had had a painful, swollen testicle of acute onset and been treated with antibiotics two years before diagnosis. Though his general practitioner was aware that the swelling persisted the testicle was not re-examined at subsequent visits. Because the patient was shy about being examined he did not seek advice even though he noticed that the swelling had increased. One month before diagnosis he developed abdominal pain, and he was finally admitted to hospital after further delay with obstructed jaundice and vast abdominal, testicular, and lung masses. After chemotherapy and extensive thoracoabdominal surgery he remained free from disease for four years, though the combined effects of chemotherapy and radiotherapy needed to treat a metastasis of the brain caused near total alopecia.

Case 2—A man aged 29 had been examined when he was 20 but had not been given any advice about his undescended testicle. Three years before diagnosis he saw an orthopaedic surgeon for backache attributed to driving a car. The pain fluctuated but persisted, and twice he was admitted to hospital as an emergency because of severe exacerbations. The pain was thought to be renal in origin, but results of intravenous pyelography were normal (although on review lateral displacement of the left kidney was evident). A nodule noted in his right testicle was not thought to be important, but a year later, when a further opinion was sought from a urological surgeon about his renal pain, it was found to be a small malignant teratoma. His backache resolved within 48 hours after the start of treatment and did not recur.

Symptoms present in untreated patients with more than six months' delay from first symptoms to first treatment

	Longest period of delay		
	Patient	General practitioner	Specialist
Gynaecomastia		3	1
Backache or abdominal pain, or both		5	4
Painless nodule or swelling	8		1
Post-traumatic or postinflammatory swelling	1	1	1
Lost on waiting list			1
Undescended testicle	1		1
Total*	10	9	9

*Excludes one patient with eight months' delay equally divided between patient, general practitioner, surgeon, and radiotherapist who was lost for two months on waiting list.

Comment

Diagnosis of testicular tumours is not always easy, and most delays in diagnosis occur in patients undergoing investigation of symptoms that are subsequently shown to have been caused by metastases. Patients' embarrassment in seeking help is also a factor. This report emphasises the importance of careful palpation of the testis in young men with symptoms of indeterminate origin, and also that some doctors are unaware that an important minority of testicular tumours can present either as small nodules in the testis without gross swelling or as a painful testis mimicking epididymo-orchitis.

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(*Accepted 8 November 1984*)

Department of Urology, The London Hospital, Whitechapel, London E1 1BB
R T D OLIVER, MD, FRCP, reader in medical oncology

Obstructive jaundice caused by corrosive injury to the duodenum

I report an unusual case in which ingestion of mineral acid caused extensive duodenal injury, resulting in obstructive jaundice presumed to be due to fibrosis of the duodenal papilla.

Case report

A 66 year old man was admitted six hours after ingesting hydrochloric acid solution with the intention of committing suicide. He had lost his job (his family's main source of income) and had consequently become depressed.