THE RETRACTILE TESTIS

W. VAN ESSEN, F.R.C.S.(Ed.),

Consultant Surgeon, Woolwich Group, South-East Metropolitan Regional Hospital Board.

A YOUNG boy is referred to the surgeon because on a single examination his testicles were absent from the scrotum. There can be four distinct reasons for this finding, and a very serious effort must be made to distinguish between them, because they may affect the child's future and his parents' peace of mind. The four possibilities to be considered are:

1. There is nothing wrong
2. Descent is merely delayed
3. There is a barrier to the normal line of descent
4. The testis or testes are ectopic in position.

It is of the utmost importance to distinguish between the first two and the second two of these. 1 and 2 will need no treatment, whereas 3 and 4 will almost certainly need operative procedures.

It might seem easy enough to eliminate the first of these conditions, but in fact well over half of all boys referred for undescended testicles are normal, (Bunce, 1961), their organs being retracted out of the scrotum as a result of the combined stimuli of cold, embarrassment and fright. With the child lying flat on the examination couch it may be quite impossible to manipulate the testis into the scrotum, indeed persistent efforts have the reverse effect. These 'retractile' testes are often said to be drawn into the inguinal canal by the cremaster muscle; they are not in the inguinal canal at all, but in a space below and lateral to it described by Denis Browne as the superficial inguinal pouch (Browne, 1938), and unless the boy is obese they can easily be palpated here. A testis in the inguinal canal is not palpable, being soft and small and covered by the firm aponeurotic sheet of the external oblique muscle. Since a testis in the superficial inguinal pouch has already emerged from the inguinal canal it follows that the higher it is the longer its cord must be, and the more easily it will reach the scrotum.

In the examination of these children the vital point is this: if the testis can be manipulated into the scrotum *by any means* it will eventually come down and stay there. These are the simple retractile testicles, and they need no interference. That they often get it, in the form of surgery or hormones or both, cannot be denied, completely invalidating many statistics, and this is because with the boy lying flat or standing up the testis just will not go into the scrotum and a special manoeuvre is necessary to get it there. The purpose of this paper is to draw attention to a

simple manoeuvre by which the retractile testis can be distinguished from the rest, thus eliminating over half the referred cases with complete assurance.

There is nothing new about the basic method (Bunce, 1961); it was described in 1931 by Louis Orr, but few people seem to know or apply it. As originally described, the boy sits on a chair with his feet on the seat; he hugs his knees to his chest, so that the thighs are flexed against the abdomen. In this position a simple retractile testis descends into the scrotum and is easily seen and palpated there (Fig. 1). This boy is ten years old and has a normal testis on the left side, easily palpable in the position shown. The right testis is also just palpable in the upper scrotum in this position, but is smaller than the left one. (Fig. 2). Neither testis is normally palpable in the scrotum lying flat.

I have found a variation of this method even more useful. The boy squats on the couch, adopting the very natural position shown in Fig. 3, with the legs separated as much as possible. Once again all normal retractile testes will descend into the scrotum, and having done so can be grasped and held (Fig. 4) while the boy unwinds until he is lying flat on his back (Fig. 5). There can now be no shadow of doubt about ultimate normal descent even though, as in this particular case, no tolerable manipulation would coax either testis into the scrotum with the boy initially lying flat, the scrotum remaining quite empty as seen in Fig. 6. In this picture the position of the left testis is indicated by the arrow, and that of the external ring by a circle. The testis is easily palpable and is beyond question lying outside the inguinal canal.

If the testis cannot be manipulated into the scrotum, how long can one wait? It seems reasonably certain that testes descending spontaneously by the 6th year will be normal. Those down between 7 and 10 may show some degenerative changes on biopsy but will probably function normally. After 11 years degeneration accelerates, and is rapid after puberty (Johnston, 1965; Charney and Wolgin, 1957). Evidently observation can be continued until 10 so long as the organ is not ectopic or associated with a hernia. The boy D.B. (Figs. 3-7) was first seen at five years as a complete cryptorchid. At seven he presented his left testis in the scrotum on squatting. Now at 10 the left testis is normal and the right one advancing (Fig. 7), so it is clear

copyright.

FIG. 1.—T.R. aged 10 years. Sitting position.

FIG. 2.—T.R. Retractable testis in scrotum, sitting position.

FIG. 3.—D.B. aged 10 years. Squatting position.

FIG. 4.—D.B. Left testis, squatting.

FIG. 5.—D.B. Lying flat after squatting. Left testis, held in scrotum.

FIG. 7.—D.B. The right testis can just be manipulated into the scrotum on squatting.

FIG. 6.—D.B. Standing. Scrotum empty. Position of testis (arrowed) below and lateral to external ring and inguinal canal.

that any previous interference by means of hormones or surgery would have been quite unjustified and probably disastrous. These ages are approximate, for the boy's general sexual development must be considered. D.B. is small and is a long way behind puberty, and he can be safely observed for another year at least. T.R. (Fig. 1) at the same age shows every sign of rapid sexual advance; first seen six months ago, a decision about his almost stationary right testis must be made very soon.

The place of hormones may be mentioned. They have two possible indications: first, as a diagnostic measure when neither testis can be palpated by the age of six or so—the value of this is questionable. Second, as a pre-operative aid; since regression occurs on withdrawal the benefit of easier surgery could be negated. Apart from this they have no place in the handling of these cases.

Early orchidectomy can seldom be justified; malignant disease of the testis before puberty is an extreme rarity.

REFERENCES

- BUNCE, P. L. (1961): Diagnosis of Undescended Testes (Correspondence), *Pediatrics*, **27**, 165.
- BROWNE, D. (1938): The Diagnosis of Undescended Testicle, *Brit. med. J.*, **ii**, 168, 171.
- CHARNY, C. W., and WOLGIN, W. (1957): Cryptorchism. New York: Hoeber-Harper.
- JOHNSTON, J. H. (1965): Review Article. The Undescended Testis, *Arch. Dis. Childh.*, **40**, 113.
- MINOR, C. L. (1959): The Empty Scrotum, *Pediat. Clin. N. Amer.*, **6**, 1137.