HYPOSPADIAS

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This congenital malformation of the urethra which occurs once in every 350 males, is found in various parts of the urethra and presents certain difficulties in obtaining a successful closure. Many of these patients are first seen as infants, and treatment is usually deferred until the child is 4 or 5 years of age. The urethral canal terminates at a site on the under surface of the penis rather than in its normal position at the tip of the glans. The urethra distal to the false opening is usually absent. The glandular portion having a separate origin is observed as a groove varying in size and depth.

Types

The types of hypospadias are usually classified according to the position of the false meatus.

A. Balanic hypospadias.

Approximately 70 to 75 per cent of the cases are of this type. The urethral opening is below its normal location in the glans, usually at the point where the frenum is attached. Surgical intervention is rarely necessary unless the meatus is pin-point in size and requires dilation or a meatotomy.

B. Penile hypospadias.

In this instance the meatus may be observed on the under surface of the penile urethra at any point between the glans and the penoscrotal junction.

C. Perineal hypospadias.

This rarest type is noted 3 or 4 cm. from the anus and is represented as a small slit in the groove which separates the scrotum into two parts. Perineal hypospadias must be differentiated from pseudohermaphrodism which it closely resembles.

Treatment

The technical difficulties for correction of this condition, and the fact that no single operative procedure suffices for all cases is attested by the innumerable operations that have been advocated for its cor-

rection. Unsatisfactory end results can usually be attributed to two factors: first, infection; second, tension on the suture line.

Infection. Infection can usually be avoided by preserving the usual sterile technics and utilizing sterile dressings for two or three days prior to operation. I prefer moist potassium permanganate dressings. Penicillin in varying dosage is administered beginning two days before operation and continued for four or five days after operation.

Tension on the suture line. I believe that the majority of plastic procedures for the relief of hypospadias fail because of undue tension on the line of suture. Although at the end of the operation this is not evident, the first erection that occurs may cause the sutures to pull out, ruining the end results. I believe therefore that avoidance of erections is essential if satisfactory end results are to be secured. Patients are given stilbestrol (the dosage depending upon the age of the child), beginning five or six days before entering the hospital and continuing for one week after operation. The operation is not performed until the patient states that he is unable to have an erection. Pronounced improvement in the end results since stilbestrol has been advocated would indicate the importance of this preventive measure. The objectives of the plastic procedures are (1) correction of the penile curvature, and (2) construction of a urethra to the tip of the glans which will provide normal function in micturition.

The first stage of the operative procedure is the excision of the longitudinal bands of fibrous tissue which extend from the false meatus to the glans. This permits the patient to have normal erections without curvature of the penis.

Four to six months later the urethral canal is reconstructed. This may be a one or two stage procedure depending on the location of the false meatus. Suprapubic diversion of the urinary stream is not employed as the urine may be diverted through the false meatus which can be closed at a later date. I prefer the use of flaps to form the new urethra, especially since stilbestrol has come into use. The end results are more satisfactory than those obtained by the Ombrédanne technic which was employed formerly.

Conclusion

1. Stilbestrol should be administered preoperatively to patients undergoing plastic procedures for the relief of hypospadias.

2. Surgical intervention should not be instituted until the patient is unable to have an erection.

3. Penicillin minimizes the incidence of infection.