# Micropenis: (I) Adult Follow-Up and Comparison of Size Against New Norms; (II) Gender, Erotosexual Coping Strategy, and Behavioral Health in Nine Pediatric Cases Followed to Adulthood; and (III) Family Mental Health and Neonatal Management: A Report on 14 Patients Reared as Girls

In the *first paper*, Money et al review eight patients (22 to 31 years of age) with micropenis whom they have followed since early childhood. By definition, a micropenis is less than 2.0 cm (stretched length) in an infant. Seven of the patients had penises at least 2 SD below the mean and six were more than 3 SD below the mean. Five were treated during childhood with testosterone. Although penile growth occurred, it did not keep pace with body growth during puberty and adolescence. Thus, as young adults, all five again had a micropenis as compared with the average penile length in 65 normal adult males of 16.7 ± 1.9 cm, which was significantly higher than previously published figures. Mean length, which was determined to supplement this study, was similar in the normal men, regardless of race, height, body habitus, or sexual preference.

The authors conclude that testosterone treatment in childhood does not result in increased penile length in adulthood and that testosterone-induced enlargement of the infantile micropenis is an artifact of the induction of an adolescent growth spurt of the penis.

The *second paper* documents the coping strategies encountered in nine patients (the eight described in the first paper, plus one who had undergone a phalloplasty following testosterone treatment) followed into adulthood. The authors emphasize that there is no single syndrome of micropenis. Rather, a micropenis is a birth defect found in a variety of syndromes and having several etiologies. In a majority of cases, it is an isolated defect, with or without defective testicular function, and may result from hypopituitarism. The chromosomal karyotype is usually 46 XY, but occasionally may be 46 XXY, 46 XX, or mosaic.

During childhood, six of the subjects took precautions to avoid exposure during urination, and all avoided genital nudity. Despite precautions, five reported being teased viciously. Eight avoided juvenile sexual play. As adults, seven of the nine subjects were dissatisfied with the size and appearance of the penis. (The most extremely dissatisfied patient was the one who had undergone phalloplasty.) Of the remaining two patients, one had the second largest penis in the study. The other had multiple visible disfigurements characteristic of the Robinow syndrome.

As a strategy for erotosexual coping, several patients who needed exogenous androgen therapy for virilization deferred treatment and remained juvenile in appearance. Five were interested in sports and typical male activities as children. Teasing was minimal in this group and cross-dressing did not occur. Three associated more with girls than boys and subsequently had homosexual life-styles. Erotic inertia and deferred erotosexual participation with a partner were the most prevalent coping strategies in seven, and one initiated erotosexual contacts, but anticipated rejection. The remaining patient was the only one who took the initiative in erotic activity, relying on multiple partners and transient encounters.

Since four of the nine patients were associated with homosexuality and/or divergent sexual imagery, the authors hypothesize that having a micropenis may dislocate the normal juvenile experience of agemate, rehearsal play, and imagery, and thus increase the chances that heterosexual orientation will be dislocated as well.

The *third article* describes 14 patients with micropenis who were assigned to the female sex. Ten were assigned by 12 days of age, and the other four by 29 months of age. Early decision is extremely important to avoid re-announcement of a baby's sex, always a crisis for the parents, regardless of their capacity to deal with it.

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The ignorance and/or reluctance of pediatricians, urologists, and obstetricians to diagnose micropenis and to advise accordingly was evident in the majority of cases. Although sexual deformities or malfunctions are still customarily considered stigmatizing in our society, it is still possible for many parents to cope, particularly with the help of professionals who can educate the parents and assist them in reaching a decision for gender assignment. The authors also emphasize that siblings are not usually included in the education process but should be.

Successful differentiation of feminine gender identity is contingent on the consistency of rearing the child as a girl, social determinants of gender role identity, and genital appearance. Female-appearing genitals can be created surgically during infancy. Late in adolescence, a coitally functional vagina can be created. Typically, there is no sacrifice of fertility, as sterility is likely to occur with micropenis. During adolescence, female hormones are administered so that the physique and appearance will be feminine.

The authors conclude that the functional morphology of the genitalia is a better criterion for sex reassignment than is the chromosomal or gonadal status. When a micropenis is vestigially small, it can be surgically reconstructed with vaginoplasty into a clitoris, whereas nothing can be done to make it coitally functional as a penis. Thus, a male baby with a micropenis can have a more satisfactory life as a girl and woman.

Money J, et al: (I) *J Sex Marital Ther* 1984;10:105; (II) *Compr Psychiatry* 1985;26:29; and (III) *J Prev Psychiatry* 1981;1:17.

***Editor's comment***—*These data have been awaited for a long time. They are in accord with the editor's belief that patients with micropenis can be reared more satisfactorily as females than males. The one possible exception may be the patients who have micropenis in association with growth hormone (GH) deficiency. We feel this group may be different and diverse. We have at the University of Virginia four such patients, all of whom are receiving GH. In two, the penis grew significantly while the remaining two continue to have micropenis.*