Patients with Turner's syndrome enter adult life with an overall deficiency of compact bone. Further studies are needed to assess the long-term significance of this and the possible influence on it of oestrogen therapy.

P. H. CHAPMAN. Royal Hospital for Sick Children, Glasgow. 'Prognostic significance of androgen excretion as measured by testicular function test'. In this investigation Leydig cell function was assessed by measuring plasma testosterone, urinary testosterone, and urinary androgens before and during stimulation with human chorionic gonadotrophin (6000 IU/day intramuscularly) for 3 days. From experience it was found that several of the measured androgens correlate well with the phenotype of the patient, and may have prognostic value. Representative cases will be shown to demonstrate these points, which may be stated biochemically thus: 5α-Androstan-3α, 17β-diol (5α-A-diol) is a hepatic metabolite of both testosterone and 5α-dihydrotestosterone and at puberty the urinary excretion of 5α-A-diol increases rapidly, the rise being related to an increased utilization of testosterone by testosterone-dependent tissues. Thus, a good androgenic status means adequate testosterone production in association with a high urinary excretion of 5α-A-diol.

5β-Androstan-3α, 17β-diol (5β A-diol) is associated with the development of the external genitalia. Good genital status is indicated by a high urinary excretion of 5β A-diol. When 5β A-diol is high, even in association with small external genitalia, the indication is that the external genitalia will develop provided there is an adequate supply of testosterone. 5β A-diol then may have prognostic value.

5α Androstan 3βol, 17-one (epiandrosterone) is a 17-oxosteroid metabolite of dehydroepiandrosterone (DHA) having retained the 3β-hydroxyl group. If the general tissue metabolism cannot utilize testosterone, as an alternative DHA becomes the principal androgenic hormone and the urinary excretion of epiandrosterone then increases. When testosterone is utilized as the androgenic hormone urinary epiandrosterone is low. Thus, a low urinary excretion of epiandrosterone indicates good somatic status.

D. B. GRANT. The Hospital for Sick Children, Great Ormond Street, London. 'Two cases of micropenis with rudimentary testes'. Two patients, aged 3 months and 1 month, with the syndrome of rudimentary testes and micropenis (Bergada et al., 1962) were presented. In both patients an extreme degree of micropenis was associated with an empty, hypoplastic scrotum. Both showed a normal male karyotype (XY).

HCG stimulation (5000 units × 3 days) was carried out in one patient. There was no significant change in either plasma testosterone or urinary steroids after HCG. At laparotomy tests could not be identified in either patient. In view of the extreme micropenis it was decided to rear both patients as girls and vulvoplasty with division of the scrotum was carried out by Mr. D. I. Williams.