The differences between the 2 cases (presentation of CAH, the need for genital reconstructive surgery, the nature of puberty) did not impair the fertility potential of these 2 patients during adulthood.

CONCLUSION
Management of CAH during pregnancy is important to ensure successful term delivery with no added pregnancy complications like gestational diabetes or hypertension.

EP_A140

VIRILISING OVARIAN TUMOUR: A TERTIARY CENTRE EXPERIENCE

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INTRODUCTION/BACKGROUND
To determine the clinical features, a spectrum of imaging characteristics and histopathologic findings of virilizing tumours of the ovary.

CASE
A 69-year-old female presented with a 1-year duration of increasing hair growth over both arms and androgenic and male pattern facial hirsutism which needed facial hair trimming once a week.
She attained menarche and menopause at the age of 12 and 55 respectively. She was diagnosed with hypertension and Graves' disease at 30 years of age. She was clinically obese with a BMI of 30 kg/m^2, blood pressure 149/84 mmHg, deepening of voice and hirsutism score of 16. There was no clitoromegaly, no proximal myopathy, no cutaneous bruising or abdominal striae. The total testosterone level was >52.05 nmol/L (NR: 0.1-1.6) with normal ACTH, cortisol and DHEA-S. An abdominal CT scan showed a left ovarian mass measuring 7.3 x 7.4 x 5.4 cm with solid components and signs of peritoneal carcinomatosis; however, no calcification within the mass was noted. She underwent primary debulking total abdominal hysterectomy with bilateral salpingo-oophorectomy (TAHBSO), omentectomy and pelvic node dissection.

Histopathological examination demonstrated steroid cell tumour of the ovary. Post-operatively, testosterone levels reduced to normal and showed improvement of alopecia and hirsutism on follow-up 6 months later.

CONCLUSION
In post-menopausal women the appearance of signs of virilization and high testosterone levels should be investigated systematically for underlying malignancy and to determine if the high testosterone levels are of an adrenal or ovarian origin. Failure of recognition will lead to a poor prognosis. In this patient, hematological investigations ruled out an adrenal cause however radiological imaging identified an ovarian etiology.

EP_A141

WHAT TESTOSTERONE CONCENTRATIONS SHOULD WE EXPECT IN HEALTHY MEN?

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INTRODUCTION/BACKGROUND
Older men generally have lower testosterone concentrations compared with younger to middle-aged men. In aging men, lower testosterone concentrations are associated with poorer health outcomes. Understanding the relationship between testosterone and men's health status has implications for defining appropriate testosterone reference ranges to apply in clinical practice.

METHODOLOGY
Studies defining reference ranges for testosterone in selected groups of healthy men and meta-analyses of prospective cohort studies which analysed associations of testosterone with key health outcomes in community-dwelling men were identified. These studies used mass spectrometry to assay testosterone concentrations.

RESULTS
In 124 men aged 21-35 years with normal reproductive function, 95% confidence limits for testosterone were 10.4-30.1 nmol/L. In 1185 non-obese men aged 19-39 years, the range was 9.2-31.8 nmol/L. In 394 healthy men aged 70-89 years, the range was 6.4-25.7 nmol/L. Individual participant data (IPD) meta-analyses of 21,074 men from nine studies showed lower testosterone concentrations in men older than 70 years (with higher luteinising hormone), and in those with higher BMI, or with diabetes or cancer. Extension of these IPD meta-analyses showed non-linear associations of testosterone with all-cause and cardiovascular mortality risk. Men with low testosterone concentrations (<7.4 nmol/L) had higher all-cause mortality.

CONCLUSION
Reference ranges for testosterone in healthy younger to middle-aged men are higher than for healthy older men.

Leydig cell impairment is apparent in men older than 70 years. Age >70 years, BMI, and presence of ill-health need to be considered when interpreting testosterone results. Testosterone concentrations expected in healthy men can also be defined by thresholds below which risks of poorer health outcomes, such as mortality, increase.

EP_A142

A RARE CASE OF CONGENITAL ANORCHIA PRESENTED AS GYNAECOMASTIA IN ADULTHOOD

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INTRODUCTION/BACKGROUND
Congenital anorchia is a rare condition characterised by the absence of testes in a 46,XY individual with a male phenotype. The incidence appears to be 1:20,000 males. The lack of testosterone production will lead to issues with puberty, bone health and fertility.

CASE
A 28-year-old male with no known medical illness presented to us at the age of 21 with absence of secondary sexual characteristics and gynaecomastia since entering pubertal period. A thorough physical examination revealed a male with a height of 171 cm with a BMI of 28.7 kg/m^2 with Tanner 1 pubic hair, and absence of axillary hair and moustache. His male sexual organs were prepubertal and his scrotum was empty. His parents noticed the empty scrotum since his neonatal period but did not seek further medical attention. An MRI was done revealing a micropenis without visualised testes in the abdomen or pelvis. Further hormonal panels showed primary hypogonadism with a very low testosterone level of 0.62 nmol/L (Normal range: 8.6-29). Thyroid function and prolactin were normal. Chromosomal analysis revealed a 46, XY karyotype. He was then started with intramuscular testosterone injection at 22-years-old.

CONCLUSION
The most common cause of congenital primary hypogonadism is sex chromosome aneuploidy, present in Turner syndrome and Klinefelter syndrome. Studies have shown that about 4.5 percent out of 6000 cryptorchid children are anorchid, and 14 percent of them have absence of bilateral testes. A hypothesis of vascular occlusion in early foetal development leading to atrophy of functional testes was made. It is supported by findings of a fibrotic node at the end of vasa differentia in anorchid patients. Congenital anorchia is rarely seen among the male population. It is congenital and presents late to clinical setting if missed during childbirth. Testosterone replacement is essential for secondary sexual characteristics and bone health.

EP_A143

HURTHLE CELL THYROID CARCINOMA (HTC): A RARE INCIDENCE OF BRAIN METASTASIS

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INTRODUCTION/BACKGROUND
Oncocytic or Hurthle cell thyroid carcinoma is a rare type of carcinoma which occurs in 5% of the population with known thyroid carcinoma. Metastasis to the brain is even rarer with 3% of follicular subtypes reported.

CASE
A 60-year-old female presented with left-sided hemiparesis and slurred speech. She exhibited full consciousness. A cranial CT showed a right frontal lobe intra-axial lesion causing obstructive hydrocephalus. Subsequent MR revealed an enhancing hypointense lesion at the frontoparietal lobe which is suggestive of a glioma. She was referred to the neurosurgical outpatient clinic; however, she experienced a seizure episode and ended up in the emergency department. She was subjected to emergency right craniectomy and tumour excision. Histopathological examination of brain tissue revealed a metastatic carcinoma consistent with a primary thyroid origin. Surveillance CT post-operatively revealed a right thyroid lobe lesion. A biopsy of the right thyroid nodule was performed during the tracheostomy procedure. Histopathological findings were consistent with HTC. A delayed thyroid ultrasound revealed a TIRADS 4 hypoechoic lesion in the right lower pole (1.7 x 2.1 cm). Otherwise, she was clinically and biochemically euthyroid. She underwent whole-brain radiotherapy and was scheduled for total thyroidectomy.