4. STEROID PATHOPHYSIOLOGY OF BPH

34. INFLUENCE OF SEX HORMONES ON THE ACCESSORY GENITAL GLANDS OF CASTRATED MALE PIGS.

Lauwers, H. ; Simoens, P. ; Nicaise, M. and De Vos, N. - Department of Veterinary Anatomy, University of Ghent, Belgium.

Seventy male pigs, early castrated in their lives, were treated with an oestradiol + trenbolone implantation, a peroral or parenteral administration of methyl-testosterone + DES, a trenbolone-injection, or with a DES-injection.

The morphological changes, observed at slaughter, were hyperplasia and metaplasia of the epithelium of the urethra and prostatic ductules, fibrosis of the vesicular glands, accumulation of individual and clusters desquamated cells in the mucus of the bulbo-urethral glands, increase of secretory activity in the different accessory glands and an increased number of glandular tubules in the prostate. The pattern and the intensity of the induced changes depend on the hormone used, the application manners and the dosis administered.

Because the accessory genital glands of castrated pigs remain sensitive target organs to hormones, the pig can be a suitable experimental animal for the study of the activity of hormones used in human and veterinary medicine. Because every application produces morphological changes, histological inspection is suggested as a useful method in the detection of illegal hormonal treatment in pigs.

35. **THE RESULTS OF THERAPY WITH DEPOSTAT IN BENIGN PROSTATIC HYPERPLASIA**

Baranowska,B., Niewiadomska,A., Rozbicka,G.
Endocrinology Clinic, Medical Center of Postgraduate Education
Warsaw, Poland

The aim of the study was to evaluate the results of treatment with Depostat /Sohering/ in patients with benign prostatic hyperplasia /BPH/. Thirty patients with BPH aged from 60 to 80 were treated with Depostat /Gestronoroncaproat/ in a dose 200 mg i.m. once a week for 6 months. The serum LH, FSH, testosterone, DHT concentrations were measured with RIA methods before and after treatment.
The diagnosis of BPH was based on the clinical and radiological criteria. In patients with BPH serum LH, FSH levels before and after LH-RH stimulation and serum testosterone and DHT concentration were significantly higher as compared with the control group.
After therapy with Depostat the clinical improvement was correlated with fall of the serum androgens /testosterone and DHT/ and gonadotrophins /LH and FSH/ concentrations.

The results obtained have shown that Depostat is an effective drug in the treatment of benign prostatic hyperplasia.

36. MEASUREMENT OF TOTAL ANDROGEN RECEPTORS (AR) IN THE WHOLE HOMOGENATE OF HUMAN HYPERPLASTIC PROSTATIC TISSUE (BPH) WITH HIGH CONCENTRATION OF SODIUM MOLYBDATE

E.Petrangeli,G.Margiotta,A.Marocchi,°F.Di Silverio,°F.Ferraro and G.Concolino
Clinica Medica V,°Patologia Urologica,University of Rome, Italy

In order to evaluate total AR in prostatic tissues, extraction and solubilization of AR have been performed in the whole homogenate with sodium molybdate at high concentration (0.2M)according to Robel (personal comunication). AR was determinated in 11 human BPH using ^{3}H-R1881 with and without an excess of cold R1881, in the presence of triamcinolone acetonide,and by means of dextran-coated charcoal technique. The results in the whole homogenate (1.37±0.60 pmol/gr tissue)were equivalent to the sum of those obtained in the cytoplasmic(1.07±0.90 pmol/gr tissue)and nuclear(0.31±0.21 pmol/gr tissue)extracts. Saturation and competition experiments were performed in the homogenate with and without ultracentrifugation. The results were comparable: the Scatchard plot analysis revealed K_d = 4.4×10^{-9}M vs 4.4×10^{-9}M, n = 34.5 vs 28.8 fmol/mg protein; R1881 was found to be the strongest competitor for AR,followed by dihydrotestosterone, whilst 3α-androstanediol, tertosterone and progesterone did not compete.

Work supported in part by a CNR grant, FECCH