

extirpation of the pancreas, and pathologists had early observed changes in the pancreas in fatal cases of diabetes examined after death. It is, however, only within recent years that experimental removal of the pancreas has succeeded without immediate death; and under these circumstances glycosuria, polyuria and wasting invariably developed. Here again it was found that if a portion of the gland were permitted to remain or were grafted in a new situation the symptoms failed to appear. Pancreatic preparations have been employed in the treatment of a number of cases of diabetes in the hands of different investigators, with resulting improvement in some cases.

It is the consensus of opinion that the symptoms of Addison's disease are dependent upon changes in the suprarenal bodies; and in conformity with this view a number of clinicians have employed suprarenal extracts in the treatment of that disease. Oliver who, in conjunction with Schafer, has made a study of the physiologic action of suprarenal extract, recommends its use also in cases attended with loss of vaso-motor tone, in exophthalmic goitre, in cyclic albuminuria, in diabetes insipidus and diabetes mellitus and in cases of capillary hemorrhage. In cases of anemia thus treated, he has observed a rapid rise in the percentage of hemoglobin. In a case under my observation presenting Addisonian symptoms, no appreciable benefit followed the use of such an extract. Postmortem examination, however, failed to disclose distinctive changes in the suprarenal glands.

It has been shown experimentally that the symptoms resulting from removal of the pituitary body—lowering of temperature, anorexia, lassitude, convulsive movements and dyspnoea—can be prevented by injections of pituitary extract. In some cases of akromegaly relief has followed employment of a similar extract. In the discussion following the report of a case of akromegaly that it was my privilege to make to this Society in 1895. I took occasion to refer to the possible utility of a preparation of the pituitary body in the treatment of that disorder. In accordance with this thought Messrs. Armour & Co., of Chicago, at my request kindly prepared for me such an extract, of which one part of the desiccated product represented seven parts of crude pituitary body. Of this I began the administration of one grain thrice daily, but the patient did not remain long enough under observation, and no therapeutic effect was noted. At about the same period or a little later, Marinesco reported to the Societe Medicale des Hopitaux three cases of akromegaly treated with pituitary extract in which symptomatic improvement resulted. Bramwell and Murray have employed thyroid extract in the treatment of akromegaly, but without pronounced effect.

Actuated by the results secured in the treatment of goiter with thyroid extract, Reinert was led to employ the prostate gland of steers in the treatment of four cases of prostatic hypertrophy, in two of which reduction in the size of the enlarged gland was noted. If the observations be correct the validity of the fact cannot be negatived by *a priori* considerations, although one would naturally look for therapeutic effects from prostatic administration in the presence of symptoms attributable to loss of function of the prostate in consequence of surgical removal or of disease. A parallel statement may be made concerning the employment of testicular extracts. At the same time it is not necessary to deny that from their nature all organic extracts may possess stimulating properties.

The most recent development in the domain of organotherapy consists in the employment of preparations of the ovaries of animals in the treatment of the symptoms resulting from removal of the functional influence of the ovaries in women either at the natural menopause or at that induced artificially by surgical intervention or by disease processes. Observations upon these lines seem to have been made almost simultaneously and independently by Mainzer