

When bicarbonates are present and diacetic acid excreted, it is said to be a favourable sign if the output of diacetic acid increases after the administration of sodium bicarbonate. This is explained on the assumption that the base unites with the acid and enables the acid to be excreted in larger amount.

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ACROMEGALY.—We now believe that this disease is caused by an excess of secretion of the anterior lobe of the pituitary gland, and in many cases it is found that the sella turcica shows enlargement in the sphenoid, and at the antepex the gland is usually much increased in size. If the symptoms of hyperpituitarism come on before the epiphyses of the long bones have united, gigantism results. We have to consider, first, the natural prognosis, and then the effect of operation. In the great majority of cases there is no immediate danger to life, and the patient may not even be reduced to invalidism. The profession is much indebted to Dr. Mark for the graphic description he has given us of his own case. The principal troubles are likely to be neuralgic pains, protrusion of the lower jaw interfering with eating, and limitation of the field of vision by pressure on the optic chiasma. In other cases, symptoms of hypopituitarism follow, possibly due to deficiency of the posterior lobe, leading to impotence in the male and amenorrhoea and sterility in the female. The subjects of gigantism are generally feeble, and seldom live to a great age.

There are cases, however, in which the outlook becomes unfavourable owing to further increase in the size of the gland leading to intracranial pressure. This is much commoner in the converse condition of hypopituitarism (Frohlich's type) characterized by adiposity and atrophy of the genitals: these patients are often suffering from a sarcomatous or cystic growth. When, therefore, in cases either of acromegaly, gigantism, or Frohlich's type, the patient complains of continuous severe headache, vomiting, and progressive blindness, which are found to be associated with slow pulse and optic neuritis or atrophy, it is probable that death is not far off. The cases of hypopituitarism are more ominous than those of acromegaly.

Prognosis of Operation. The operation mortality is not so high as one might suppose from the inaccessible situation of the gland. Von Eiselsberg reports 16 cases with 4 deaths (from acute meningitis). Cushing avoids opening the nasal sinuses so as to reduce the risk of sepsis, and has only lost 10 per cent out of 61 operations: several of the patients were already desperately ill. The purpose of the operation was to relieve pressure by decompression, the base of the pituitary fossa being removed; in other cases, part of the gland was excised, or a cyst evacuated. If the signs of intracranial pressure are marked and generalized, a subtemporal decompression gives more relief.

With reference to the eventual results, von Eiselsberg claims that all his recovered cases were greatly relieved of their headache and morbidosis: he followed some of them as long as four years afterwards.