thigh and leg a touch was disagreeable (protopathic sensation); sensation to heat and cold normal except over the front of the right thigh.

Dr. Bird reports that on March 25th—five months after operation—sensation over both legs is normal, the left leg has recovered, and she can support her full weight upon it; there is still right foot-drop, but she can move the right foot and toes, and can extend the right knee, so that steady recovery is proceeding in this limb also. She can sit up, and has not had any morphine.

The history of the case with the severe root pains increased by moving the limbs, the muscular wasting, the reaction of degeneration in the muscles, the distribution of tingling, and loss of sensation—the latter so far as could be made out of posterior root type—in certain root areas together with slight affection of the bladder, pointed to a lesion chiefly on the right side and affecting certain roots of the cauda equina high up. There was one symptom, however, which definitely indicated that the spinal cord was also involved from pressure, and not only aided in the diagnosis of the side of the tumour, although this was clear enough from the predominance of sensory and motor troubles in the right leg, but also of the main position of the tumour as above the origin of the first sacral root and below that of the third lumbar, and that was the persistent and very marked ankle clonus on the right side in presence of an active right knee-jerk. The slower recovery in the right leg is due to the more severe damage to the roots on this side, which must take a considerable time to recover, though it is to be anticipated that she will regain the use of this leg in from eight to twelve months from operation.

CLASSIFICATION OF TUMOURS OF THE PITUITARY BODY.

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WHEN I was engaged in work upon a recent case of acromegaly¹ I was constantly met by a practical difficulty due to the absence of a generally accepted or standard nomenclature of pituitary tumours. It has therefore occurred to me that a useful purpose might be served by suggesting a new scheme of classification that would be easy of application and might recommend itself for general adoption, because it is based on the principle of histogenesis, and thus takes into consideration the physiology of the tumours; for epithelial tumours, even when malignant, lead to hyperpituitarism, whereas tumours developed from the stroma will destroy the glandular tissue and thus lead to hypopituitarism.

The following scheme differs in some important respects from that published by Roussy and Clunet,² and it is hoped that for the reason above explained it will afford a still better basis of classification.

I. Heterotopic Tumours.

1. Tumours of the cranio-pharyngeal duct.
2. Teratomata.

II. Homoiotopic Tumours.

1. Epithelial tumours:

(a) From anterior lobe	{ Chromophile
Chromophobe
Combined	Cubic cell
adenoma.
Round cell
adenoma.
Carcinoma.
(b) From pars intermedia		

2. Tumours developed from connective tissue:

(a) From anterior lobe and pars intermedia	{ Fibroma.
Sarcoma.
(b) From posterior lobe	... Glioma.

3. Mixed tumours		Fibro-adenoma.

1. The group of heterotopic tumours comprises those which develop from a tissue normally not present in the pituitary.

1. Tumours of the cranio-pharyngeal duct were first recognized as such by Erdheim³ eight years ago. They arise from *Anlagen* of the epithelium of the duct which are frequently met with in normal pituitaries and which have been developed from the ectoderm of the buccal cavity. They consist of squamous epithelium, often

containing *Schichtungskugeln*. They occur in the infundibulum or in the pars anterior of the hypophysis and are either benign or malignant. Erdheim collected a number of cases from the published literature which were described under different names, some of them as adenomas, but which really belonged to the category of tumours of the cranio-pharyngeal duct.

2. Teratomata in the pituitary are rare, but great importance has been attached to them by some authors, especially by Marburg.⁴

II. Homoiotopic tumours arise from a tissue normally present in the gland.

1 (a) According to Courtellemont⁵ the following features are characteristic of the epithelial tumours of the anterior lobe:

1. A tendency towards the development of a single cellular type.
2. Rarefaction or entire disappearance of interlobular connective tissue.
3. Diminished disposition of the cells to arrange themselves in acini.

The first characteristic holds good for most pituitary tumours, although it is to be remembered that some cases have been described in which both kinds of cells were present in the new growth.

Three types of glandular tumours can be distinguished: Chromophile, chromophobe, and combined; each type may deviate more or less from the normal structure of the gland—that is, it may be more or less degenerated. Adenomas with cubical cells approximate most closely to the original glandular structure, so closely, indeed, that some authors designate them as struma of the hypophysis. The cells are still arranged in acini, which, however, are larger and more irregularly disposed, and contain less connective tissue than is the case in the normal gland.

If these tumours begin to degenerate the glandular structure is almost completely lost, and the cells are grouped round the blood vessels, which are mostly sinusoidal capillaries. The specific cells are slightly smaller than the cells of the adenoma. At the same time they assume a round shape. Hence these tumours are described in the scheme as round cell adenomas. Clinically these tumours should be regarded as benignant. Malignant tumours seem to have the same histological appearance; they can only be distinguished by their behaviour in forming metastases. The germs from which such metastatic tumours arise are carried not only by the blood stream, but also by the cerebro-spinal fluid. Malignant tumours of the pituitary are, however, extremely rare. If the histological examination of an extirpated tumour reveals a tumour possessing the features just described, it will in the vast majority of cases be a round cell adenoma, which permits a good prognosis.⁶

(b) Tumours of the pars intermedia appear to be rare. Those tumours described as glandular tumours of the posterior lobe seem really to have developed from the pars intermedia, the cells of which normally show a tendency to proliferate into the pars nervosa.

2. The tumours developed from connective tissues in the pituitary exhibit the same feature as those formed in other parts of the body.

3. The term "fibro-adenoma" is proposed for the mixed tumours first described by Zak,⁷ in which the stroma, instead of being rarefied, has undergone considerable increase. These tumours are said to be a sign of diminished glandular function; they have never been found to be associated with acromegaly, but only with degeneratio adiposo-genitalis.

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* These "round cell adenomas" are often very similar to sarcomas, so that the differential diagnosis can be extremely difficult. Sarcomas, however, are very rare; most sarcomas of the literature are really adenomas. Von Eiselsberg⁶ has recently published his cases of pituitary tumours; in his paper will be found some instructive illustrations of the histological appearance of these tumours.

THE estate of the late Dr. Henry William Cross of Whitley has been declared at a net value of £17,993. Dr. Cross, who became M.D. Durh. in 1886, was formerly in practice at Newcastle.