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udders. This has been confirmed by Bloch and Schraft who have observed that the injection of sexual hormones produces the same result. Moreover it has been found that the hormones are ineffective in albinos which shows that it is necessary that the deep layer of the skin contain "dopa-oxydase." Bloch and Schraft have further investigated whether the female ovarian hormone can produce pigmentation. In a nullipara, aged 22 years, menstruating regularly they introduced an ovarian hormone (œstroglandol) to a total of 100 units, and following this there appeared slight hyperpigmentation of the areolæ, a definite pigmentation of the linea alba and a moderate chloasma.

Bloch and Guldberg have repeated these investigations with a pure and crystallized hormone supplied by Butenandt. This preparation was injected up to 75 units daily in six castrated male guinea-pigs and a very definite pigmentation of the areolæ and udders resulted. At the same time the udders became elongated and increased in size and erectility. This reaction was much more obvious when a crystallized folliculin was added to the œstroglandol.

Thus the pigmentation of pregnancy ought to be considered as due to the female sex-hormone. It may be asked, however, if the hormone itself produces the pigmentation as does adrenaline in Addison's disease. But folliculin has no chromogenic properties, and so it must be admitted that this hormone activates the pigment-producing ferment it may be by acting directly on the autonomic nerves or by stimulating the production of a hormone from the pars intermedia of the hypophysis.

B. BLOCH u. G. GULDBERG, "Die Ursache der Schwangerschafts-hyperpigmentierung" (*Klin. Wochenschr.*, Berlin, 1933, xii., 734).

OPERATION IN METASTATIC CEREBRAL CARCINOMA.

That a cerebral metastatic carcinoma need not be considered so hopeless as it has hitherto been the following case seems to show.

A female aged 57 years had been operated on four years previously for carcinoma of the right mamma and had remained well until five months ago when she began to suffer from cerebral fatigue. She had difficulty in concentrating her attention either in the course of conversation or while listening to an address. Her memory became defective, especially for recent events and when these symptoms had persisted during three months, headache, worst at night, was superadded. Though the pain involved the whole head during an attack it was felt especially in the left frontal region. Next she developed transient aphasia when she could neither find words nor pronounce them. The aphasia lasted only a few minutes and in the intervals disappeared

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completely. Then during the last month she had diminution of visual acuteness and had great difficulty in reading even at 20 cm., and sometimes she had diplopia.

The tendon reflexes were normal except for some increase of the patellar response. There was right astereognosis. The pupils were normal, but paresis of the right abducent nerve was present and a right lateral homonymous hemianopsia with retinal hæmorrhages. Alexia was very definite. Radiography was negative.

These symptoms pointed to a single tumour and there was no local sign of recurrence about the mammary cicatrix. A large left temporal-parietal occipital flap was reflected and the tumour found on the surface of the occipital lobe and penetrating the white substance. It was excised without opening the lateral ventricle. She passed through a satisfactory convalescence and was discharged on the fifteenth day. Histological examination showed the same characters as had the original tumour of the breast, an atypical carcinoma with a dense fibrous stroma.

The operation was followed by a course of radiotherapy and she continued well sixteen months later.

D. PETIT - DUTAILLIS, "Métastase cérébrale unique d'origine mammaire traitée par l'ablation chirurgicale" (*Bull. et mém. de la soc. nat. de chirurg.*, Paris, 1933, lix., 1281).

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