

anatomically presents an equal contrast. There is to be found in exophthalmic goitre, as Greenfield (23) has shown, and as is now generally accepted a characteristic hyperplasia of the thyroid parenchyma, complicated, it may be in later stages, by increased fibrosis. The one question of immediate concern here, is whether from this we can safely deduce that there is accompanying increased internal secretion. As I have already hinted, I do not think that from anatomical considerations alone we can safely make this deduction. There is, however, an important fact in favour of such deductions, namely, the strong likeness between the primary glandular changes in Graves' disease and those described by Halsted (24) and others as occurring in the compensatory hyperplasia of the thyroid after removal of large portions of the gland; and if, together with the anatomical changes, we consider the favourable effects which so often follow removal, destruction, or diminution in the blood supply of portions of the hypertrophied gland in this disease—of operations which must lessen the internal secretion—it is difficult to arrive at any other conclusion than that in exophthalmic goitre there is increased internal secretion, and that this plays a singularly important part in the development of the symptoms. Whether this be primary or secondary to lesions of the central nervous system—of the restiform bodies for example, our present anatomical data are insufficient to decide—as again they are incapable of deciding whether the increased secretion is altered or unaltered in quality. I may here note that as Joffroy and Achard (25) have indicated the symptoms of parenchymatous and adenomatous goitre are at times curiously allied to those of exophthalmic goitre. Indeed, together with Vandervelde and le Bœuf, they hold, I think without due cause, that there is nothing anatomical to distinguish the one condition from the other. That the one condition may lead to the other is a matter of clinical experience. As Dr. Shepherd has pointed out to me extirpation of the goitrous nodules or cysts leads to the almost immediate amelioration of the symptoms.

The development of exophthalmic goitre without hyperplastic alteration of the thyroid is a matter concerning which there is little anatomical evidence. I find one case recorded by Joffroy and Achard in which the gland was of normal size and, while not normal histologically, presenting nevertheless a series of changes wholly distinct from Greenfield's classic description. The vesicles instead of being small and corrugated, were enormously distended, instead of absence there was abundance of colloid material, in place of a columnar and proliferating epithelium, the lining cells were flattened. Not a few