

times blood, you may have either a tubercular kidney or a stone in the kidney.

Dr. Hingston agreed with Mr. Bryant, but differed from Dr. Fenwick when he said only patients in good health were suitable for operation. He was in the habit of operating on the most desperate cases and with the most gratifying results.

Dr. Shepherd agreed with Mr. Bryant in leaving the kidney in every case after having removed the stones and drained. He referred to a case of Dr. Laphorn Smith's in which an exploratory incision had been followed by a cure.

Dr. Armstrong also raised some cases in which the symptoms had been quiescent for over a year after an exploratory incision.

Dr. McCallum, of Toronto, then read a paper on "The Pathology of Anæmia." The paper dealt with the pathology of simple anæmia and chlorosis. The author adopted the view advocated by Burge, that the iron compounds of the animal body are formed in the vegetable kingdom. These compounds are not, as Burge maintains, directly converted into hæmoglobin in the animal, but they are assimilated and constitute the chief nuclear substance of every cell in the body. This nuclear substance, chromatin, has been now definitely determined to be an iron compound and it is abundant in miniature red blood corpuscles, some of the excess becoming converted into hæmoglobin. The latter is, therefore, not directly formed out of the iron salts and proteids of the food and if inorganic iron salts are assimilated at all, the iron of such compounds passes into the hæmoglobin after a delay, during which it is held combined in chromatin. On the other hand, as the author contends, inorganic iron salts are not assimilated at all for the animal embryo receives all its chromatin already formed from the maternal organism and for some time after birth the food (milk) of mammalia contains no inorganic iron salts while there is present an iron-holding nucleus (one of the hæmatogens of Burge) derived from the chromatin of the broken down cells of the

mammary gland. The inference from this is that if in the embryo the assimilation of inorganic iron salts does not occur, neither does it take place in the adult animal. The results of experiments on the administration of iron salts to animals supports this inference.

A deficiency in the quantity of hæmoglobin, as in chlorotic patients, indicates then a deficiency in the amount of chromatin in the body, a condition which practically means starvation of each cell of the body, a limitation of its proliferating energy and therefore an under-development of the organs. This under-development of the organs has been referred to by Virchow under the name *hypoplasia*.

The author, furthermore, contended that hæmoglobin is derived from chromatin by processes which may be classed as degenerative, and which find a good illustration in those by which hæmatoidin is derived from hæmatin or hæmoglobin.

Anæmia, then, being primarily a deficiency, not of hæmoglobin formation, but of chromatin absorption the action of inorganic iron salts is, as Burge supposed, partly to protect the food chromatin from decomposition of alkaline sulphides and, further, to retard the development of bacteria which decompose these iron compounds and set free the iron.

Dr. Cotton of Cowansville read a paper on "Appendicitis." He raised a number of cases in which after making his diagnosis sure by means of the hypodermic needle, he had operated and drained with good results. One case in which he was about to operate had broken into the bladder and cured itself.

Dr. Armstrong had had a very unfortunate experience, so he had come to dread cases of Appendicitis more than any others.

Drs. Praeger, Powell, Roddick and Dupuis joined in the discussion, the general opinion being that the majority of these cases might get well without operation, with or without the assistance of small doses of calo-