

drug which has little or no influence in a healthy state of the circulatory organs. If we compare the action of caffeine with that of digitalis in pathological states, we shall find that the action of the latter is more marked than that of the former. The only remaining action of caffeine that lends importance to its usefulness as a cardiac therapeutic agent is its power of increasing the quantity of urine. It has *marked* diuretic powers. It acts as a diuretic, first, because it increases the blood-pressure when this is lowered; and, secondly, it has a directly stimulating action on the secreting structures of the kidneys.

It is in their actions on the kidneys that digitalis and caffeine differ so much from each other. The former acts solely as a diuretic owing to its power of influencing the blood-pressure, while the latter, in addition to this action, increases the secreting powers. When digitalis is administered to a patient with cardiac dropsy, it usually takes three, or it may be four, days before its diuretic powers are made manifest. Caffeine, on the other hand, increases the secretion of urine in a few hours. The cause of the slow diuretic action of digitalis is due to the fact that its primary action is first to increase the pressure throughout the whole arterial system, including that of the kidney arterioles, and it is not until the dilatation of the latter takes place that the urine commences to be excreted in greater abundance. To hurry the diuretic effects of digitalis, it has been proposed, when giving it in cases requiring a quick effect, to combine it with some drug that has the power of preventing the blood-pressure in the kidneys from being raised, while, at the same time, no influence would be exerted on the pressure in the arteries of other areas. Sodium nitrite has been suggested by Lauder Brunton as a drug likely to fulfil this purpose. Whether this suggestion will ever become of practical utility remains to be seen.

Given a case of asystolic from organic disease, we can rely on digitalis always (except in the very advanced cases of fibrofatty degeneration) of doing good; but then we have often to wait three days before these results are obtained. Now, it is claimed for the new caffeine salts that they act with great