

excreted daily you might very well ask : does not the urea *per se* cause the poisoning? By no means, for to quote from Prof. Bouchard, we find that there are 7 toxic principles in the urine. Firstly, a diuretic known as urea. Now, urea, although it is a product of disassimilation, plays a useful role in the economy; it possesses the property of forcing the renal barrier, of removing whilst it makes its own escape from the organism both the water in which it is dissolved, and the other toxic matters which are united with it. In fact, although poisonous, it takes an enormous dose of it to act as such, and it has been calculated that to be poisoned by urea alone it would take 19 days of complete retention of urea in a patient weighing about the same weight as the case we are considering. Secondly, a narcotic; it is fixed, of organic nature and has not been given a name. Thirdly, a sialogenous substance; it produces salivation. No name given for it. Fourthly, we find two substances endowed with the property of causing convulsions, one is fixed, stable, organic, it might belong to the group of coloring substances from the manner in which it behaves. It is really an alkaloid. It is found in less quantities in the urine of the day. But it is of less physiological activity, the narcotic substance in the urine when injected causing death before the convulsive substance can produce convulsions. We do not know the names of these substances. Fifthly, there is a substance which causes contraction of the pupil; fixed, organic, probably belonging to the coloring matter series; name unknown. Sixthly, there is a substance which reduces heat, by diminishing heat production. It is fixed, organic, and may be a color substance. Seventhly, another convulsive substance, fixed, inorganic. It is, briefly, potassium, whose convulsive and toxic properties we have known for a long time. Nevertheless we cannot attribute to it alone the convulsions. In every case there is good cause for taking into account potassium in the toxic phenomena, consequent upon the retention of substances which ought to be eliminated by the urine; for the accumulation of potassium may go on more rapidly than that of other substances coming from the organism. If in consequence of failure in the elimination of the substance in the urine which reduces calorification, disassimilation of the tissues diminishes, the potassium which