

uric acid group, but of one of the elements forming the latter, he lays down five propositions to which this substance should conform, and seizes upon carbamate of ammonium as the likely one. It accumulates in the blood until it produces a seizure; during the seizure it is transformed into urea with loss of a molecule of water. Carbamate of Ammonia is a very unstable white powder; by taking up a molecule of water it is transformed into ammonium carbonate. Drechsel found carbamic acid in the blood. He considered it resulted from the decomposition of the albuminous bodies into leucin tyrosin glycolal ammonia, etc., which in their oxidation produce carbamic acid, which later combining with sodium, decomposing under the action of a ferment into urea and carbonate of sodium.

Experiments by Hahn, Massen, Nencki and Pawlow, in which an Eck fistula was produced by joining the portal vein and vena cava. Symptoms of poisoning resulted resembling that produced by carbamate of sodium and calcium when introduced into the blood, viz., somnolence with ataxia, excitement with ataxia and blindness, catalepsy with anæsthesia, epilepsy and tetany. The carbamic salts caused no symptoms when given by the stomach, but in dogs with an Eck's fistula carbamate of sodium produced a marked intoxication.

Dr. Krainsky experimented himself with carbamate of ammonium, given subcutaneously, and found symptoms very much resembling epileptic attacks, and acted much like the blood taken from a patient during an epileptic attack. He found, however, as others did, that much the same effects followed similar use of other ammonium salts, and after numerous experiments he concludes that it is the ammonia and not the carbamic acid that produces the intoxication. But the ammonia in all probability he thinks manifests its effects in the form of carbamate of ammonium, in which form it exists in the blood, but also as a carbonate of ammonium, the latter produces depression and somnolence and the former the convulsive seizure and the epilepsy. In ordinary eclampsia the carbamate of ammonia arises primarily, and is the cause of the attacks, while in uræmia it is formerly secondarily from ammonium carbonate.