

the results. We, therefore, question whether the generally accepted views regarding intermediary metabolism are not, in a number of instances, now open to revision. This is a preliminary report.

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The Distribution of Electrolytes in Dogs Following Ligation of Both Ureters.

DANA W. ATCHLEY AND ETHEL M. BENEDICT.

From the Department of Medicine, College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital.

A study has been made of the electrolyte distribution in the blood of 5 dogs with experimental uremia, produced by ligation of the ureters. A comparison of the blood removed before operation and just before death showed very striking changes in the electrolytes. These alterations for serum are averaged as follows:

Total base = +0.1 m. Eq.	
Protein anion = -1.1 m. Eq.	
Chloride = -17.9 m. Eq.	Phosphate = + 9.4 m. Eq.
Carbonate = - 5.5 m. Eq.	Sulphate = +12.9 m. Eq.
<hr/> Total = -23.4 m. Eq.	<hr/> Total = +22.3 m. Eq.

There is an equimolar supplanting of chloride and carbonate by phosphate and sulphate with no consistent change in total base. Analysis of skin, muscle and brain for chloride before and after operation indicated that these tissues tend to follow the changes in the blood. Of 7 pairs of analyses (1 on brain, 3 on muscle and 3 on skin) only one failed to show a decrease in chloride after the onset of uremia. Vomitus contained insignificant amounts of chloride. The determinations on whole blood showed that the cell electrolytes vary in parallel fashion to those of the serum.

The acidosis of uremia in dogs with renal insufficiency is caused by retention of sulphate and phosphate. The base available for these acids is supplied by carbonate and chloride. It is important to note that in average figures chloride supplies three times as much base as carbonate. This is a preliminary report.