be used in the daily tests. Necessarily this titration is to be repeated with 4 or 5 different sera.

In the case of the protein (edestin and phaseolin) and bacterial (*B. abortus* and *B. mallei*) antigen-antibody complexes, it was observed, after obtaining the antigenic unit, that increasing the number of units within the limitations of the complement fixation test, did not affect the strength of the reaction. One unit and as many as 8 units of antigen were found to give similar results. It would appear that the optimum amount of specific antigen for complement fixation tests is not the largest amount which may produce fixation, in view of the unnecessary increase in colloidal ingredients, but rather the smallest amount conducive to safety, as for example, 2 units.

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The prevention and control of parathyroid tetany.

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If the signs and symptoms following parathyroidectomy are the result of an intoxication, as some investigators believe (Paton, Findlay, Watson, Burns, Sharpe, et alii), a vigorous diuresis if more or less continously maintained by means of the intravenous injections of physiological saline solutions might prevent the onset of tetany or rapidly lead to a disappearance of all symptoms of tetany if the tetany was first allowed to develop, providing the poison or poisons responsible for the condition were water-soluble and were excreted by the kidneys.

Dogs were accordingly injected intravenously two or three times daily with ordinary Ringer's solution following thyroparathyroidectomy. All injections were made with a Woodyatt pump delivering 42 c.c. per minute. The animals received 33 c.c. or more per kilo body weight at each injection. In some animals calcium-free Ringer's solution was injected from the start. In others, we changed from ordinary Ringer's solution to a calcium-free Ringer's solution to study the importance of the calcium ion in the Ringer's solution. The animals were fed a mixed diet consisting chiefly of meat.

Our chief results can be enumerated as follows:

1. By maintaining a brisk diuresis by means of intravenous injections of Ringer's solution it is possible to keep dogs alive indefinitely (at least two months) even when fed daily on a diet consisting chiefly of meat. The animals usually remain in a good state of nutrition. We have one animal which survived complete parathyroidectomy 51 days. In this animal we could induce symptoms of marked parathyroid tetany (hyperpnœa, anorexia, spasticity, tremors, and mild clonic convulsions) at will by stopping the injections and feeding the animal meat. Other animals have been kept alive for 14, 17, and 31 days. As far as we know they died because of an inability on our part to introduce enough Ringer's solution to maintain a vigorous diuresis.

2. Calcium-free Ringer's solution is quite as effective as ordinary Ringer's solution in prolonging the otherwise short life of a parathyroidectomized animal. After preventing the reappearance in one animal of severe tetany by the intravenous injections of Ringer's solution over a period of 26 days, we continued our treatment with calcium-free Ringer's solution for seven days with no change in condition of the animal. We next induced severe tetany by stopping all injections and feeding the animal a considerable amount of meat and cured the animal rapidly by forced injections of *calcium-free Ringer's solution*. The animal has been kept free from symptoms on calcium-free Ringer's solution up to the time of writing (eight days). It appears then that an active diuresis, however produced, with the elimination of toxic compounds (guanidine compounds, perhaps, as indicated by previous investigations) is more important than the administration of calcium compounds.

3. Marked appetite and consumption of food and a diuresis greater than one might expect on the basis of the known quantity of fluid injected seem to be consequences of the treatment. These and kindred phenomena are reserved for further investigation. A more detailed report of this work with a discussion of the possible importance of this method of treatment not only in parathyroid tetany but of allied conditions and diverse toxemias will appear shortly.