

weeks of gestation. Two cases were at about the third month.

It is perhaps scarcely necessary to point out that, as compared with Abderhalden's delicate and complicated serum test for pregnancy, this method is both simple and expeditious.

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The influence of chenopodium on the circulation and respiration.

By **WILLIAM SALANT** and **A. E. LIVINGSTON**.

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The intravenous injection of one to two per cent. emulsions indicates that the oil of chenopodium is a circulatory, as well as a respiratory depressant. Blood pressure fell after a dose of 0.02 c.c. per kilo was introduced into rabbits, cats and dogs, but the absolute, as well as the relative effect, varied in different individuals. While large doses produced a greater fall of blood pressure this was not always in proportion to the size of the dose. The volume of the kidney followed closely the blood pressure, thus indicating that the effect on the latter is of cardiac origin. That chenopodium is a cardiac depressant was also shown in experiments on the isolated frog heart. A solution of 1 : 2,000, of chenopodium, or its active principle, ascaridole, perfused for one to two minutes, caused a marked decrease of force, as well as frequency of cardiac action which was not always observed, however, when the perfusion time was reduced to half a minute only. It was frequently absent after the initial perfusion and sometimes when this was repeated once or twice after suitable intervals, but depression of the heart was usually produced when a sufficient number of perfusions were made in each case. Cardiac irritability after vagus stimulation which was tested in dogs was found to be decreased after chenopodium.

The action of chenopodium on respiration varied in different animals, being less effective in rabbits than in cats or dogs. Small doses, about 0.02 c.c. per kilo may produce respiratory depression in all animals. In some experiments the effect was observed after

the initial dose, in others, however, only after the two or more doses were given. Larger doses, 0.04 to 0.08 c.c. per kilo, produced apnea in cats and dogs for a variable period, which was followed by very slow respiration.

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The absorption and elimination of chenopodium.

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The introduction of chenopodium into the stomach or small intestine of different animals after previously ligating the duodenum immediately below the pylorus was frequently followed by the appearance of symptoms of chenopodium poisoning.

In rabbits evidence of absorption from the stomach was obtained in some cases after 40 to 95 minutes. In others, however, several hours have elapsed without showing any effects. Absorption from the small intestine was particularly rapid in cats. When 2 to 5 c.c. of the oil was emulsified and introduced into the duodenum symptoms appeared in some individuals almost immediately after, in others there was a delay of five minutes. Absorption of chenopodium from the stomach also takes place in cats but the process is much slower. The effect of chenopodium poisoning was noticed one and three quarter hours after its introduction into the stomach in some experiments, but in other cases no evidence of absorption could be obtained during the lapse of this interval of time. Experiments on dogs indicate that the absorption of chenopodium is much slower in these animals than in cats.

When chenopodium was given intravenously its presence in the expired air could be easily detected. The odor was especially marked after large quantities were injected. The urine and bile showed no evidence of chenopodium.