No. 202 gave the same result for 3 strains, but clumping was less marked for the 4 others. Serum No. 201 agglutinated one strain up to 1:640, four others agglutinated from 1:40 to 1:80, and 2 remained negative. Active sera gave larger clumps than inactivated sera.

Summary. Five strains of Castellani-Sonne dysentery bacilli were isolated at the Babies and Childrens Hospital during the summers of 1931 and 1932. The organisms, in so far as they were studied, were culturally and biochemically typical, but they were inagglutinable by their homologous antisera when agglutinations were performed in water baths at 37° and 56°C. and at icebox temperature overnight. However, by centrifugation of the suspension, 2 sera clumped all the 7 strains, while the third serum gave less marked clumping. Complement fixation gave excellent results, and doses of the sera as small as from 0.0001 to 0.0004 cc. fixed the complement in the presence of the strains. However, it is suggested that the centrifuge method of agglutination be used for routine diagnosis of this group of organisms on account of the slow appearance of the differentiating biological characters of the group and because of the relative inagglutinability of the strains by the usual method of agglutination.

6978 C

Effect of Adenylic Acid on Gastric Secretion.*

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Following the isolation of histamine from the pyloric mucosa,[1] it was suggested that histamine might be found in the blood stream after the ingestion of a meat meal. The extraction of quantities of blood for histamine by various methods gave a substance which possessed vasodepressor properties and gave a positive Pauly reaction but was uniformly negative (subcutaneous) in producing a gastric response.

* This investigation has been aided by a grant from the Josiah Macy, Jr. Foundation.

[1] Sacks, J., Ivy, A. C., Burgess, J. P., and Vandolah, J., PROC. SOC. EXP. BIOL. AND MED., 1931, **28**, 941.

Adenylic acid is one of the vasodepressor substances found in the blood stream.[2] According to Bennet and Drury,[3] 3 mg. of adenylic acid intravenously cause a blood pressure fall of 40 mg. of mercury. Believing that this substance might be capable of producing a gastric secretory response, doses from 1.0 to 10.0 mg. were injected subcutaneously into Pavlov pouch dogs. The gastric response was uniformly negative.

6979 P

Cyclic Variations in Urinary Excretion of Iodine in Women.*

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While investigating the daily urinary excretion of iodine in patients with goiter, we observed a rise in the urinary output of iodine during the first 2 days of menstruation in one (Fig. 1, B), with non-toxic nodular goiter, and a premenstrual rise in the other (Fig. 1, A), with exophthalmic goiter. Several investigators have reported an increase in the blood iodine during menstruation.[1, 2, 3, 4] It has also been reported that menstrual blood is considerably higher in iodine content than venous blood.[3, 5]

Since the urine was not obtained by catheterization some unavoidable contamination occurred. However, 50 to 100 cc. of menstrual blood would be required to give the increase found during the menstrual period in the patient (B), and blood was not grossly evident in the specimens. To further investigate this cyclic variation, 2 women without evidence of thyroid disease (C and D) were studied throughout the entire menstrual cycle.

During these studies the subjects were allowed a general diet. Care was taken to exclude foods known to be high in iodine content, and particularly sea foods. The ages are as follows: A-18, B-39,

[2] Zipf, K., *Arch. exp. Path. u. Pharm.*, 1931, **160**, 579.

[3] Bennet, D. W., and Drury, A. N., *J. Physiol.*, 1931, **72**, 288.

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[1] Maurer, F. E., *Archiv. f. Gynäk.*, 1927, **130**, 70.

[2] Jahn, D., and Kesselkaul, O., *Deutches Arch. f. klin. Med.*, 1928, **161**, 143.

[3] Kesselkaul, O., *Verhandl. d. Gesellsch. f. Inn. Med.*, 1928, **40**, 294.

[4] Scheringer, W., *Arch. f. Gynäk.*, 1930, **143**, 319.

[5] Bourcet, P., *Compt. rend. Acad. d. sc.*, 1900, **131**, 392.