TABLE I.
Bed-side Agglutination Test with Rapid *B. tularense* Antigen and Whole Blood.

No. of cases	History	Positive tests	%
100	Normal adults	0	0
100	Adults suffering from various infectious diseases	0	0
100	Brucellosis patients	10	10
30	Serological reactors to *B. tularense**	30	100
2	Confirmed cases of tularemia	2	100
20	Guinea pigs and rabbits experimentally infected	20	100

* Reactors determined by tube agglutination tests.

summarizes the results of the tests.

It may be seen that in spite of the few positive cases, the results of the test were very significant. The test was repeated many times in each case. The positive tests were clear cut in the 30 persons in whom it was found that the serum had a significant titer of agglutinins for *B. tularense*. In regard to the 10 cases of cross-agglutination found in the group of 100 patients suffering from brucellosis this is not surprising because of the previous findings referred to above. These cases of cross-agglutination can be readily differentiated by means of selective agglutination reported elsewhere.[10]

In the guinea pigs experimentally infected with tularemia the test was positive after the 7th day of inoculation and remaining positive during 7 months until discarded.

All individuals showing a positive bed-side agglutination test with whole blood, including the 10 cases infected with *Br. melitensis*, gave allergic skin reaction when injected by intradermal route with "Tulargen,"[10] an extract obtained by grinding *B. tularense*. The opsonocytophagic test performed with killed *B. tularense* as antigen and blood of the same persons, was positive in all cases.

Summary. A bed-side test for the rapid serological diagnosis of tularemia is described. The test is performed mixing a droplet of a concentrated suspension of *B. tularense* with a droplet of whole blood taken from the ear or from the finger of the patient. The minimum agglutinative titer of the patient's serum must be 1:100 to be detected by the rapid test. The antigen may be used for screen tests with blood serum.

[10] Tovar, R. M., *Medicina*, 1945, **25**, 331.

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Some Pharmacological Properties of the Monoanilide of Aconitic Acid.

R. M. FEATHERSTONE AND EMIL K. VENTRE. (Introduced by E. G. Gross).

From the Department of Pharmacology, College of Medicine, The State University of Iowa, Iowa City, and the Agricultural Chemical Research Division, U. S. Department of Agriculture, Baton Rouge, La.

The monoanilide of aconitic acid was prepared by one of us* from the *cis* anhydride according to the method of Nau, *et al.*[1] This compound was one of a series of derivatives of aconitic acid which were being tested as nonaqueous solvents for medicinal agents. The anilide group is attached to one of the carboxyl groups connected to the unsaturated carbon linkage. It was deemed of interest to compare the toxicity and the analgesic and antipyretic actions of this compound with those of acetanilide.

* Emil K. Ventre.

[1] Nau, C. A., Brown, E. B., and Bailey, J. R., *J. A. C. S.*, 1925, **47**, 2596.

Toxicity. Forty rats weighing approxi-

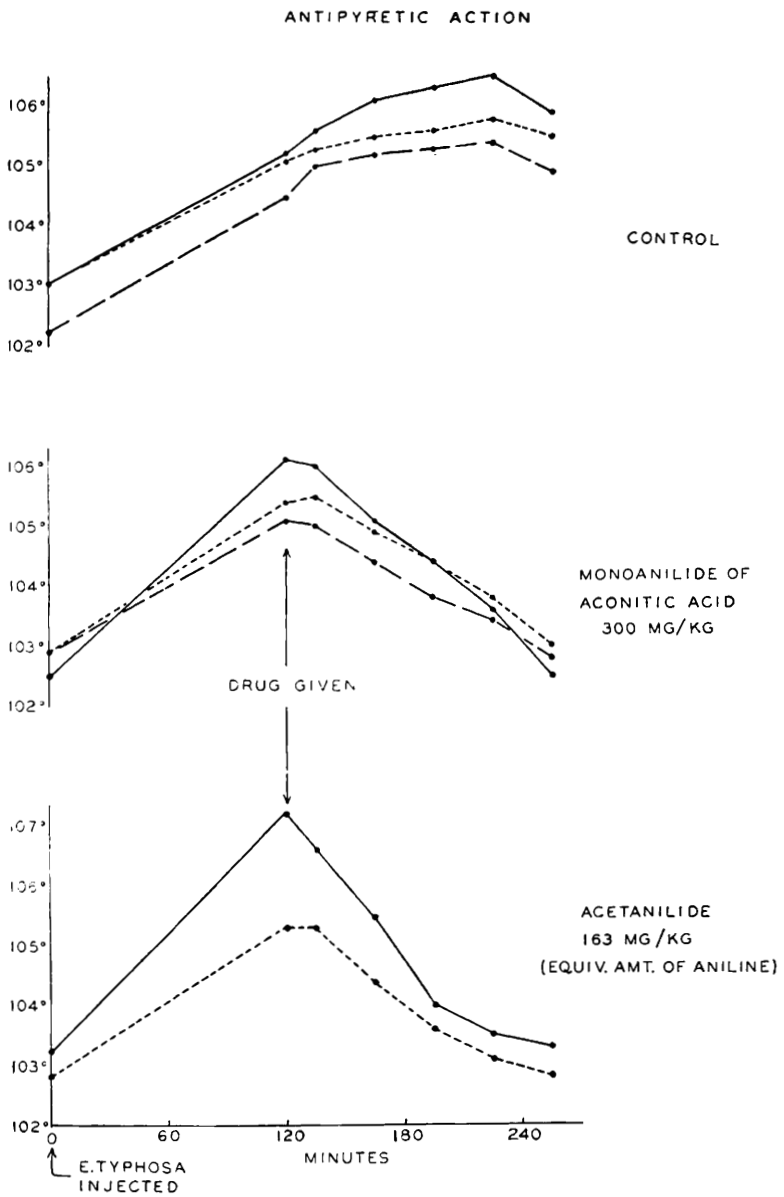

Fig. 1.

mately 200 g each were used in determining the LD_{50} of the compound when administered in suspension through a stomach tube. Twenty of the rats were used in a preliminary series of experiments to learn the approximate LD_{50} and the other 20 were divided into groups of 4 for each of 5 dose levels between 3.8 g/kg and 4.2 g/kg. The data in Table I support the assumptions that the toxicities of the monoanilide of aconitic acid and acetanilide are due primarily to the aniline in the molecules and that the 2 compounds have similar toxicities on a molecular basis.

Analgesic Action in Dogs. Three dogs were given on different days oral doses of 50 mg/kg of the monoanilide of aconitic acid and 27.25 mg/kg of acetanilide—amounts having equal weights of aniline. The rise in pain threshold was measured in each case

TABLE I.
Toxicity.

Compound	LD_{50}	Aniline %	Aniline g
Monoanilide of aconitic acid	4.0	37	1.5
Acetanilide	2.42	68	1.6

by the method of Hardy, *et al.*,[3] as adapted for use with animals. The data in Table II show that these 2 compounds in the doses given were essentially of equal efficiency in raising the pain threshold of dogs.

TABLE II.
Analgesic Action

	Rise in pain threshold			
	Monoanilide		Acetanilide	
Dog No.	Peak rise, %	Time, min	Peak rise, %	Time, min
1	17	50	20	65
2	18	55	18	60
3	17	60	16	60

[2] Sollman, T. H., and Hanzlik, P. J., *Fundamentals of Experimental Pharmacology*, J. W. Stacey Co., San Francisco, 1939, 241.

[3] Hardy, J. D., Wolff, H. G., and Goodell, H., *J. Clin. Invest.*, 1940, **19**, 649.

Antipyretic Action in Rabbits. An elevation in body temperature was produced in 8 rabbits by injecting intravenously 1 cc of a preparation of killed *Eberthella typhosa* containing approximately 10^7 organisms/cc. Rectal temperatures were measured before the injection and at intervals afterward. Either the monoanilide of aconitic acid or acetanilide was administered orally to groups of rabbits after an elevation of 2-4 degrees in body temperature was noted, usually 2 hours after the initial injection. The resultant decreases in temperature are compared in Fig. 1 with the temperatures of a group of rabbits given no drug.

Summary. The monoanilide of aconitic acid appears to have no advantages over acetanilide as an analgesic or antipyretic agent. The activity of the monoanilide seems to be related to the aniline in the molecule, as is the case with acetanilide.[4] No additional pharmacological actions were noted which could be ascribed to the propene group of the aconitic acid.

[4] Michel, H. O., Bernheim, F., and Bernheim, M. L. C., *J. Pharm. and Exp. Therap.*, 1937, **61**, 321.

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Starch Reaction as Aid in Identification of Causative Agent of "European Blastomycosis."

J. MAGER AND M. ASCHNER. (Introduced by B. Zondek).

From the Department of Hygiene and Bacteriology, The Hebrew University, Jerusalem.

The clinical picture and symptomatology of "European Blastomycosis" ("Torulosis") is variable, and unreliable as a basis of diagnosis. The differentiation of the etiological agent is beset with difficulties, and its cultural and morphological resemblance to contaminating non-pathogenic yeasts has given rise to much confusion in the literature of yeast infections. The diagnostic scheme outlined below may be helpful in this connection, especially to pathologists without training in mycology, as it avoids the use of refined morphological criteria.

While studying the biochemical properties of nonfermenting capsulated yeasts, we observed that a strain isolated from a case of torula-meningitis produces extracellular starch in special growth conditions.[1] The amount of starch produced is considerable and can easily be detected macroscopically when a plate culture of the organism is flooded with Lugol's iodine solution.

We have now extended our investigation

[1] Aschner, M., Mager, J., and Leibowitz, J., *Nature*, 1945, **156**, 295.