

TABLE IV.
Average Strength and Weight in Grams of Anterior Tibial Muscles After Neurotripsy on One Side.

	2 mos. after neurotripsy; 5 animals			
	Treated	Untreated	t ratio	Corr. coef.
Strength direct stim.	1980	2140	.68	.819
Strength sciatic stim.	1700	1860	.88	.869
Weight	5.48	5.74	.88	.813

"neurotripsy" in the dog should be long enough to bring out any improvement resulting from the treatment. Our failure to demonstrate any such improvement in weight and strength of the treated muscles would indicate that in the dog this procedure does not increase the residual innervation of the partially denervated muscle. However, additional experimental animals with a greater degree of denervation are being run for a longer period of time following the "neurotripsy" procedure.

The results indicate that stimulation of the spinal nerves exclusive of L₆ yields approximately 1000 g of tension for each muscle. However, three months after bilateral resection of L₆, each muscle showed an average strength of approximately 1950 g and 5

months after bilateral resection a strength of approximately 1900 g. This may indicate that following partial denervation there may be an increase in the residual innervation as suggested by some investigators^{2,4,5} or hypertrophy of the remaining innervated muscle fibers. This phenomenon is being investigated further.

Summary. Treatment of the partially denervated anterior tibial muscle of the dog with closed manual "neurotripsy" produces no significant increases in wet weight and muscle strength 2 months after treatment.

⁴ Weiss, P., and Edds, Jr., *Am. J. Physiol.*, 1946, **145**, 587.

⁵ Van Harreveld, A., *Am. J. Physiol.*, 1945, **144**, 477.

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Isolation of Brucella from Apparently Healthy Individuals.

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In recent years the isolation of brucella organisms from cases of Hodgkin's disease¹ has caused considerable discussion. The confirmation of this finding in our laboratory and the statements in the literature that these organisms could be isolated from patients with various infections² led us to seek an explanation.

It seemed to us that the most likely ex-

planation was that infection with brucella was widespread, at least in certain regions, and that the organism persisted in people furnishing favorable foci. In order to test this hypothesis it was decided to explore the possibility that tissues affording good conditions for growth of brucella organisms might actually harbor them. Since brucella are known

¹ Parsons, P. B., and Poston, M. A., *South. Med. J.*, 1939, **32**, 7; Forbus, W. D., and Gunter, J. N., *South. Med. J.*, 1941, **34**, 376.

² Mettler, S. R., and Kerr, W. J., *Arch. Int. Med.*, 1934, **54**, 702; Chaikin, N. W., and Schwinner, David, *Rev. Gastroenterol.*, 1943, **10**, 130; Amoss, H. L., *Internat. Clin.*, 1931, **4**, 93.

to multiply in macrophages and fibroblasts,³ it was thought that cultures of enlarged prostates and fibrosed fallopian tubes might reveal the presence of these organisms.

At present 34 prostates have been cultured. From these cultures *Brucella abortus* has been isolated in 2 instances and *Brucella melitensis* in a third. Forty-three fallopian tubes have been similarly studied. From one of these *Brucella melitensis* has been isolated. The cultures of the prostates and tubes were made by obtaining from the surgeon, in a sterile container, portions of the prostate which were removed through the urethra. The specimens were immediately macerated, extracted, and the tissue extract incubated in Bacto-tryptose Broth at 37.5°C in 10% CO₂ for 10 days. After 10 days the broth specimens were inoculated on Bacto-Tryptose Agar plates, and these were similarly incubated for 10 days. Unless positive specimens were obtained sooner, this procedure was repeated twice before discarding the specimens as negative. Identification of the organisms was made by 1) the morphology of the colony on tryptose agar, 2) the morphology and staining reactions of the individual organisms, 3) sugar reactions, and 4) agglutination with specific antiserum. Two of the positive specimens were sent to another laboratory where their identification was confirmed.*

Microscopic examination of all the prostates

³ Goodpasture, E. D., and Anderson, K., *Am. J. Path.*, 1937, **13**, 149; Castaneda, M. R., *Proc. Soc. Exp. Biol. and Med.*, 1947, **64**, 298.

* Two of the positive cultures were sent to the laboratory of Dr. W. W. Spink of the University of Minnesota School of Medicine where their identity was confirmed.

and all the fallopian tubes was made. Practically all of them showed evidence of chronic infection. Sections from 2 of the prostates and the fallopian tube had a perivascular reaction which was not present in the others. This reaction consisted in a perivascular cuffing with mononuclear cells, many of which were eosinophilic. The third prostate could not be evaluated microscopically, because of extensive involvement with cancer.

Although none of the patients from whom brucella were obtained had any unusual symptoms prior to operation, a review of their histories revealed certain significant facts. In all 4 cases there was a history of country life and contact with cows and other farm animals. In 1 instance the patient had been in contact with an animal infected with brucellosis. In all cases there was a history of the consumption of raw milk. All of the patients had a clinical record of illnesses compatible with brucellosis. None of these illnesses, however, had occurred in recent months. The serum of all 4 patients lacked agglutinins for brucella, while their skin gave strongly positive reactions with brucella antigen. The post operative course of these patients was characterized by persistent low grade elevation of their temperature. It was impossible, however, in any of the cases to be certain that this fever was due to the brucella since in every instance there were other complications which might account for it.

We believe that this study, together with those of others, indicates that brucella is endemic, at least in certain parts of the world, and that the organisms may be carried by a number of apparently healthy individuals.