

a follicular response in a female and at the same time stimulate the testes of a male to secretory function is difficult to interpret considering the results which have been obtained with purified follicle-stimulating extracts of the pituitary.^{7, 8, 9} Several explanations suggest themselves but all are purely conjectural: (a) the threshold for luteinization of the ovary may be far above that necessary to produce stimulation of testicular interstitial cells; (b) possibly the interstitial cell stimulating and luteinizing hormones are not identical; (c) it may be extremely difficult to cause luteinization of follicles which grow rapidly and become cystic.

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Efficacy of Pellets of Posterior Hypophysis and of Pitressin in Oil in Diabetes Insipidus.

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The efficacy of the subcutaneous administration of dried posterior pituitary gland in diabetes insipidus has not been reported previously. Pellets of this material have been prepared and implanted subcutaneously into 4 cats with experimentally produced diabetes insipidus* and into 2 patients with diabetes insipidus. The results are shown in Table I. It is to be noted that mixing the material with tyrosine or impregnating the pellet with beeswax did not prolong the effect in the cats. An inflammatory reaction which occurred at the site of implantation of sterile pellets in the patients later required drainage. An attempt was made to prolong the action in man by impregnation of the pellets with lanolin or beeswax. The reaction which developed at the site of implantation was so severe that the pellets had to be removed before complete absorption occurred.

⁷ Greep, R. O., and Fevold, H. L., *Endocrinology*, 1937, **21**, 611.

⁸ Greep, R. O., *PROC. SOC. EXP. BIOL. AND MED.*, 1939, **42**, 454.

⁹ Chow, B. F., Greep, R. O., and van Dyke, H. B., *J. Endocrinology*, 1940, **1**, 439.

* Available through the courtesy of W. R. Ingram, Department of Anatomy, State University of Iowa, College of Medicine.

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TABLE I.
Duration of Effect of Dried Posterior Pituitary Gland Implanted Subcutaneously
in Cats and in Man with Diabetes Insipidus.

	Control period				Posterior pituitary pellets					
	No. Days	Avg fluid intake, cc	Avg urinary output, cc	Avg urinary specific gravity	Wt of pellets, mg	Days active	Avg fluid intake, cc	Avg urinary output, cc	Avg urinary specific gravity	
Cat	1	14	261	1.016	102.0	11		151	1.030	
"	2	6	580	1.006	98.0	6		231	1.019	
"	3	7	488	1.008	190.0*	4		316	1.015	
"	4	7	370	1.012	100.0†	7		175	1.025	
Patient	1	3	13,170	13,815	1.000	300.0	3	2,650	2,025	1.015
"	2	4	11,300	11,925	1.000	300.0	3	1,400	1,283	1.015

*Pellet consisted of equal parts of tyrosine and dried posterior pituitary gland.
†Pellet impregnated with beeswax.

The above results demonstrate that pellets of dried posterior pituitary gland implanted subcutaneously control the manifestations of diabetes insipidus, but that this method is not applicable for treatment in man. For this reason pitressin tannate† in oil was employed. This material was administered to 3 cats with experimentally produced diabetes insipidus and to 3 patients with the syndrome. In the cats 1.0 cc ameliorated the manifestations for 3 to 7 days and in man for 30 to 82 hours. There were no unpleasant or deleterious general or local reactions. The symptoms of the disease have been controlled in the 3 patients by the subcutaneous injection of 1.0 cc every 36 to 57 hours.

† Supplied through the courtesy of Parke, Davis and Company.