

pressure of frog's blood is 40 mm. H₂O for 1% protein. White⁴ gives practically the same figure. There is thus seen to be plenty of filtration pressure to produce urine in the frog, the systolic pressure being about 3 times the osmotic pressure of the colloids.

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Significant Difference in Response of Pernicious Anemia to Fetal Calf and Beef Liver Feeding.

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A marked increase in the number of circulating reticulocytes represents a well-known feature in the response of patients with pernicious anemia to the feeding of beef liver or of the Cohn-Minot liver extract. So constant is this response that the reticulocyte curve is being used in the testing of the potency of extracts. An equally constant but usually less pronounced feature is the pouring out of an increased number of erythroblasts into the circulation, which phenomena precedes the reticulocyte increase by a few days. Biologically both these phenomena are reliable indications of a certain lag in the complete cell maturation.

TABLE I.
Subject: Mrs. Q. U. Hosp. No. 43942. Diagnosis: Pernicious Anemia.

Day of observation	Erythrocytes millions per cu. mm.	Reticulocytes in % of erythrocytes	Hemoglobin	Remarks.
1	1.08	1.5	31	On liver extract, potency unknown.
3	1.33	1.8	33	
5	1.36	3.4	33	
7	1.24	2.4	33	
9	1.19	1.8	32	
11	1.20	1.3	35	From 10th day on powdered fetal liver.
13	1.34	1.6	39	
15	1.38	1.8	41	
17	1.40	1.6	40	
19	1.70	.6	42	
21	1.85	.4	43	
23	1.90	.8	47	
25	2.10	.6	51	

⁴ White, H. L., *Am. J. Physiol.*, 1924, lxviii, 523.

In this paper we present an instance of complete maturation of the erythrocytes during the whole of an induced rapid remission in a typical severe case of pernicious anemia (woman, age 41, Hosp. No. 43942). The remission was produced by the feeding of powdered fetal calf's liver, in amounts corresponding to 300 g. of fresh liver a day. This remission followed immediately upon an unsuccessful trial of corresponding doses of a beef liver extract, the potency of which had not been previously ascertained. As seen from Table I, there was at first during the liver extract period some definite response with a slight increase in the number of erythrocytes and an increase of the reticulocytes up to 3.9%. Both these changes were, however, transitory. As an unfavorable sign megaloblasts appeared in the circulation in increased number.

With the onset of the fetal liver feeding the erythrocytes started again to show a steady increase in number, and the megaloblasts disappeared promptly. The normoblasts which had been present in small number during the whole period of observation did not increase, and the reticulocytes remained below 2%, soon falling as low as about half of 1%. On beef liver extract the corresponding reticulocyte counts would have gone as high as 15% or more.

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Statistical Significance of Erythrocyte Counts During Responses to Liver Extract in Normal Individual.

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Marked increases in the number of circulating erythrocytes have recently been reported following the administration of the Cohn-Minot liver extract to normal individuals.¹ The outstanding features of the curves obtained were 2: rapid and considerable increases as well as marked irregularities in the number of erythrocytes leading to deep and abrupt depressions alternating with peaks. The curves were constructed from daily blood counts.

It seems desirable to supplement these observations by more frequent determinations of the number of erythrocytes, as well as by

¹ Watkins, C. H., Johnson, R., and Berglund, H., *PROC. SOC. EXP. BIOL. AND MED.*, 1928, xxv, 720.