

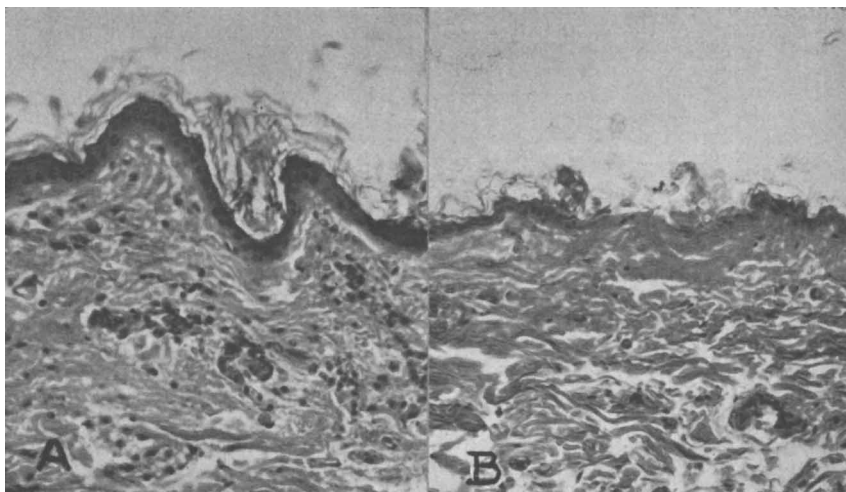


FIG. 1a.

Two hr (control): Margination and beginning migration of leukocytes.

FIG. 1b.

Two hr (cortisone): Area of necrosis in upper corium representing needle scratch. Minimal margination of leukocytes.

of these observed facts to the enhancing effect of cortisone and ACTH on certain bacterial infections is suggested.

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The Plasma Potassium Level in the Newborn.* (18621)

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High serum potassium levels during the early weeks of infant life have been reported by several observers. Data from the literature are summarized in Table I. The values recorded are well above the normal adult level of 4.41 meq./liter, $\sigma = 0.36$ meq./liter (5). The erythrocytes contain a considerable amount of potassium which may diffuse out

of the cells under certain circumstances or which may be released by hemolysis. Either of these circumstances could produce erroneously high plasma or serum potassium levels. The problem, therefore, has been reinvestigated.

Methods. Placental blood was obtained immediately after the infant was born and before the cord was severed. Blood was withdrawn through a needle inserted in the umbilical vein. Blood was obtained from young infants from the femoral vein or the superior longitudinal sinus. Dried heparin was used to prevent clotting. The blood sample was immediately centrifuged and the

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1. Edelstein, F. and Yllpö, A., *Z. f. Kinderheilk.*, 1920, v27, 79.

2. Bakwin, H. and Rivkin, H., *Am. J. Obstet. and Gyn.*, 1927, v13, 68.

3. Kotikoff, J. A., *Jahrb. f. Kinderheilk*, 1933, v138, 280.

4. McCance, R. A., and Young, W. F., *J. Physiol.*, 1941, v99, 265.

5. Farber, S. J., Pellegrino, E. D., Conan, N. J., and Earle, D. P., *Am. J. Med. Sci.*, in press.

TABLE I. Serum Potassium Levels in Young Infants. Data from the literature.

Authors	No. of cases	Age	Serum potassium, meq./l	
			Mean	Range
Edelstein and Yllpö(1)	11	Placental blood	11.04	7.09-22.92
Bakwin and Rivkin(2)	20	" "	9.63	5.75-13.00
Kotikoff(3)	14	<1 mo.	7.03	5.30- 8.39
McCance and Young(4)	12	7 to 14 days	7.65	4.25-10.08

TABLE II. Plasma Potassium Levels in Newborns and Infants.

	Plasma potassium, meq/liter									Mean
	Individual levels									
Placental plasma	4.5	4.6	4.6	5.0	5.1	5.1	5.2	5.3	5.4	4.98
1 to 3 days old	2.7	4.8	5.1	5.1	5.3	5.8				4.89
6 to 9 days old	3.8	4.6	4.7	4.8	4.9	5.1	5.2	5.7	5.8	

plasma was separated from the erythrocytes within 20 minutes of withdrawal from the body. Specimens with more than a faint trace of hemolysis were discarded. All potassium measurements were made on an internal standard flame photometer with an error of less than 1%.

Results. The plasma potassium levels observed in 9 placental samples and in 15 infants ranging in age from 1 to 9 days are recorded in Table II. Although the mean plasma potassium levels are only slightly above the mean normal for adults, all but 2 of the 15 infants have values greater than the adult mean.

Comment. When strict attention is paid to details in obtaining plasma samples, the plasma potassium level in blood obtained from the placenta and from infants under 10 days of age is only slightly greater than the mean normal adult value. Earlier reports of potassium levels in placental serum and in infants' serum well above the normal adult average and ranging up to 23 meq./liter appear to be erroneous.

Summary. Plasma potassium levels of placental and early infantile blood samples are only slightly greater than the mean normal level for adults.

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Bile Acids in Blood and Lymph in Experimental Obstructive Jaundice.* (18622)

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While engaged in studies endeavoring to discover more of the nature of the metabolism of the bile acids in obstructive jaundice, several phenomena were observed which seem sufficiently important to report at this time. In these experiments we have employed the method of Irvin, Johnston, and Kopala(1) for determining the concentration of cholic

acid in blood and lymph. This method has shown itself to be reliable, and obviates many of the difficulties encountered in the earlier methods of bile acid analysis.

I. Four dogs were employed. Under intravenous nembutal anesthesia, the common bile duct was double ligated and severed between the ligatures. The cystic duct was ligated

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1. Irvin, J. L., Johnston, C. G., and Kopala, J., *J. Biol. Chem.*, 1944, v153, 439.