

typical common colds characterized by nasal discharge, nasal obstruction, mouth breathing, slight fever, and a leukocytosis. Two of these apes developed moderately severe coughs. The nasal discharge persisted in all animals for at least 10 days. There were no secondary cases among the other 10 apes.

*Summary.* We feel that the observations just recorded add experimental proof to the common belief that colds may be spread by infected food, and bring into the foreground the necessity of excellent personal hygiene upon the part of those individuals ill with common colds.

## 6981 P

## Metabolism in Pregnancy: XI. Blood Sugar Changes During Delivery.

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In the course of an extended investigation on various aspects of the metabolism during pregnancy a series of records were made while the patient was actually in labor and immediately thereafter. It is a well-recognized fact that during pregnancy blood sugars are at a low normal level. In our own series<sup>1</sup> the average level throughout gestation was 83 mg. and the average extreme fluctuation from 81 to 86 mg. In the present instance, a series of 25 patients were exam-

TABLE I  
General Data

	Average or Record
Age, high	40 yrs.
low	18 "
average	25 "
Parity, high	10
low	1
average	2.8
Duration of Labor, high	41 hr. 55 min.
low	0 " 55 "
average	12 " 54 "
Last food before a.p. blood, high	21 hr. 30 min.
low	0 " 45 "
average	11 " 2 "
Time of a.p. blood before delivery, high	27 hr. 25 min.
low	0 " 15 "
average	6 " 4 "

<sup>1</sup> Rowe, Gallivan and Matthews, *Am. J. Physiol.*, 1931, 96, 94.

ined at some time after labor had begun and blood was taken again 30 minutes after delivery. Certain details may be presented in tabular form.

Even so small a series presents a wide scatter of performance. There were 11 primiparae, and while the time in labor (16 hr. 32 min.) averages well above the mean for the group, the longest labor was the woman terminating her tenth pregnancy. The influence of nourishment was seemingly negligible. In the case receiving food (cocoa, orange juice, muffin) 45 minutes before the blood sample was taken, the blood sugar level was 80 mg., and in only 5 cases was the elapsed time less than 6 hours with an average level of 82 mg. In the analysis of the elapsed time from blood taking to delivery, that with the longest was 87 mg. and the shortest 85. The blood sugar data follow:

TABLE II  
Blood Sugar Levels

		Amount Mg. %
Blood Sugar, a.p.,	high	89
	low	65*
	average	82
Same, p.p.,	high	135
	low	86
	average	108

\*Next lowest is 76 and only 5 below 80.

Only one case in the entire series failed to show an appreciable rise. This was a primipara 9 hours and 20 minutes in labor with blood taken 3 hours and 20 minutes before actual delivery. Food had not been taken for 17 hours before the veinpuncture. The levels both a.p. and p.p. were 86 mg.

*Summary.* 1. The low blood sugar levels characteristic of pregnancy obtain actually during labor and apparently to within a few minutes of delivery. 2. There is a marked rise in blood sugar on emptying the uterus, the average increase being slightly more than 30%, and in individual cases reaching low hyperglycaemic levels. 3. The time factor as such seemingly plays no part. In the case with blood taken 15 minutes before delivery, the level was 85 mg.; 45 minutes later it was 108 mg., an increase of 27%.