as great an effect as a transmitted impulse. These results are identical with those previously reported. A similar phenomenon has been reported by Lewis and Master[3] for the mammalian heart. (3) Demonstration that the duration of the refractory period preceding any given auricular impulse determines the velocity with which it will be conducted, or, if blocked, its effect upon subsequent conduction. Thus, if the auricular cycle preceding that terminated by the impulse in question is short, so that the impulse is preceded by a short refractory phase, the velocity of transmission is greater than had the antecedent cycle been long. This result, which is most marked with no or slight compression, confirms that found by Lewis and Master for the mammalian heart. If the cycle antecedent to an auricular cycle terminated by a blocked impulse is short, the effect of the blocked impulse upon subsequent conduction is greater than had the antecedent cycle been long.

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Factors in the Metabolism of Galactose.

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While there are as yet no satisfactory chemical methods available for the rapid determination of galactose in blood, the resistance of this sugar to fermentation by yeast offers a means for the approximate estimation of the amount of this substance present in the blood following its administration. As in the determination of pentoses, previously described,[1, 2] it has been assumed that the difference between the total non-fermented reduction of the blood and the usual rather constant residual reduction gives a measure of the amount of galactose present.

The details of this series of experiments may be summarized as follows: The sugar (or sugars) in aqueous solution was injected into the marginal ear vein of a fasting, medium sized (about 2 kilos), male rabbit. Blood samples were taken before, and at

hourly intervals afterwards. The blood was analyzed for total reduction and reducing power after fermentation.[1, 2]

In view of the facts that the tolerance for glucose is greater after the previous administration of the same sugar, and that glucose has been reported to increase the tolerance for galactose,[3, 4] these studies have included experiments on the rate of removal of galactose from the blood stream after a previous administration of galactose, and after, or with, the administration of glucose.

The residual reduction of the blood returned to normal in 2 hours, in 2½ hours and in 3 hours, respectively, after the intravenous injection of 1, 2 and 3 grams of galactose. The previous administration of galactose or glucose, or the simultaneous administration of glucose, has not been found to have any marked effect on the rate of removal of galactose from the blood after its intravenous injection. Following the simultaneous injection of 2 units of insulin and one gram of galactose, the reducing power of the blood after fermentation was practically back to the control level in one hour. The reports of the effect of galactose on insulin intoxication have not been consistent.[5, 6, 7, 8] The results can probably be explained on a basis of differences in technique.

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