

klärung im unterschiedlichen Geburtsvorgang bei Tier und Mensch, wie Dauer und Stärke der Wehen usw., finden. Die höchsten Kininogenwerte werden bei Schwangeren kurz vor der Geburt gefunden, bei den untersuchten Tieren aber erst post partum. Bemerkenswert erscheint auch, dass post partum das normale Niveau des Kininogenspiegels bei den Tieren sich langsamer einstellt als beim Menschen.

Grundsätzlich zeigt das Verhalten des Kininogenspiegels während der Schwangerschaft bei Mensch und Tier die gleiche Tendenz. Eine Beteiligung des Kininogen/Kinin-Systems bei der Schwangerschaft und der Geburt scheint ein allgemeines Phänomen zu sein. Für weitere Studien zur Bedeutung des Kininogen/Kinin-Systems sind diese Tierarten als Modelle geeignet.

Summary. The investigations concern the alterations of the plasma kininogen level of rats and rabbits during gestation. The results obtained with these animals are analogous to man. For this reason rats and rabbits are suitable models for further studies on the importance of the kininogen/kinin-system during pregnancy and delivery.

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Effect of Age on the Ascorbic Acid Content of the Liver of *Calotes versicolor*

The important roles that ascorbic acid plays in the aging of rat has been reported earlier¹⁻⁴. It was considered of interest to study the role of ascorbic acid in aging of poikilotherms and to compare the changes with that of mammal. The lizard (garden lizards) *Calotes versicolor* was chosen since it is the terrestrial poikilotherm nearest to the mammal. MOURHOUSE and GURERRANT⁵ reported that ascorbic acid concentration in the liver of rat increases rapidly during the first 3 weeks of extrauterine life, declines sharply during the next 5 weeks and then remains relatively constant. In rat the liver synthesizes the ascorbic acids. In amphibians, reptiles and birds (except Passeriformes) the kidney synthesizes the ascorbic acids (ROY and GUHA⁶). The metabolic function of liver is, however, similar in higher vertebrates. This paper deals with the estimation of ascorbic acid content in the liver of *C. versicolor* of various ages and the comparison of the changes with those of rat.

The male lizards, collected locally during April-November, were weighed and their body length from snout to cloaca was recorded. After killing by neck dislocation, the liver was soaked in filter paper, cleaned off adherent tissues and was immediately transferred to an ice-cooled watch-glass. The ascorbic acid was extracted twice by grinding approximately 0.5 g of liver in 7.5 ml of cold 6% trichloroacetic acid (TCA) in a pre-cooled mortar and pestle. The supernatant obtained by centrifugation at 3000 rpm in a Clay Adams centrifuge, was filtered and used

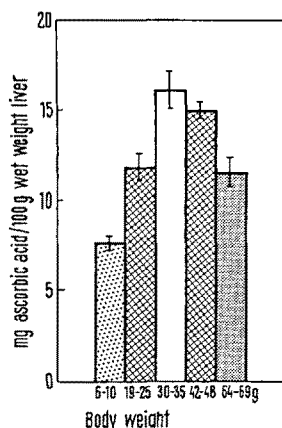
for ascorbic acid estimation by 2,4-dinitrophenyl hydrazine method of ROE⁷. Bromine was used to oxidize ascorbic acid and incubation was done at 57°C for 45 min⁸. The optical density was measured at 540 nm in a U.V.I. Spec. Hilger model H 700/303. The concentration of ascorbic acid in the unknown sample was determined from a standard linear curve.

The concentration of ascorbic acid rises sharply up to the stage when the lizard weighs 30-35 g (Figure). Thereafter the decline starts slowly and the change is gradual. The concentration of ascorbic acid in the liver partly depends on the rate of synthesis in the kidney. In lizard the liver is not a synthesizing organ whereas in rat it is. The changes found therefore, are not exactly similar. Also the requirement of ascorbic acid in the rat is higher than that of lizard, as is evident from the ascorbic acid concentration. In rat liver, the decline in ascorbic acid concentration is sharp, whereas in lizard liver the change is gradual. Some of the changes indicate that the age-related changes in poikilotherms differ from that of homeotherms. Ascorbic acid may play a differential role in the aging of these 2 groups of animals.⁹

Zusammenfassung. Eine altersabhängige Konzentrationsänderung der Ascorbinsäure in der Leber von *Calotes versicolor* wurde festgestellt: Auf einen allmählichen Konzentrationsanstieg erfolgt eine entsprechende Abnahme. Vergleiche mit der Rattenleber wurden durchgeführt.

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