

with "young" animals. The changes in the "adult" group of rats resemble more closely the senescent focal lesions that are found in aged rats (Moise and Smith,¹ Reader and Drummond,³ and Osborne, Mendel, Park and Winternitz⁴).

These observations provide additional suggestive evidence that young animals have greater powers of withstanding the injurious effect of an extremely high protein diet than do rats subjected at an older age to the same diets.

¹ Moise, T. S., and Smith, A. H., *J. Exp. Med.*, in press.

² Arataki, M., *Am. J. Anat.*, 1926, xxxvi, 399.

³ Reader, V. B., and Drummond, J. C., *J. Physiol.*, 1925, lix, 472.

⁴ Osborne, T. B., Mendel, L. B., Park, E. A., and Winternitz, M. C., *J. Biol. Chem.*, 1927, lxxi, 317.

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Changes in Oxygen Capacity of Blood Pigment in Rabbits Following Splenectomy.

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Nine rabbits were splenectomized, the operative procedure being done as simply and rapidly as possible. Ether anesthesia was used in all cases. Initial blood samples were taken from the ear vein of each rabbit the day before operation and were analyzed for total blood pigment and oxygen capacity by the Van Slyke carbon monoxide method.¹ In all of these initial samples the agreement between the total and the oxygen carrying hemoglobin was within the limits of experimental error. A spectrophotometric analysis of each sample was also made.

The rabbits were bled from the ear daily for three, four, or five days after operation and the blood samples analyzed as before. In every instance it was found that the oxygen capacity dropped below the total pigment, in most cases showing a maximum deviation of 10 to 15 per cent of the total pigment on the second day and returning to the same value as the total hemoglobin on the third or fourth day after operation. It was first thought that the discrepancy between the oxygen carrying pigment and the total hemoglobin content might be due to the presence of methemoglobin. The results of the

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work with the spectrophotometer did not substantiate this idea, however, as the ratios obtained for the light absorption at two given wave lengths ($\lambda = 5400$ and $\lambda = 5600$) are entirely different from those obtained in solutions of known methemoglobin content. Further work is necessary before any statement can be made as to the nature of this reduced oxygen carrying power. Such work is now in progress.

As a control a laparotomy without the removal of the spleen was performed on one rabbit. There was no discrepancy found between total and oxygen bearing pigments.

Two rabbits were not bled, except for the initial samples, until the fifth day after splenectomy. At that time both showed a definite loss in oxygen carrying hemoglobin, one of 6, the other of 12 per cent of the total pigment. Both had returned to normal relations by the twelfth day. This suggests the possibility that the stimulus of the daily bleedings, 5 to 7 cc. being taken at a time, may play some part in causing the more rapid return to normal in those rabbits that were bled frequently immediately after operation. Further experimentation is being carried on to clarify this point.

This is a preliminary report.

¹ Van Slyke, D. D., *J. Biol. Chem.*, 1926, lxvi, 409.

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Gold Preparations in Therapy.

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Gold preparations have recently found clinical application in tuberculosis and certain diseases of the skin. Among these preparations are Sanocrysin or gold and sodium thiosulfate, Krysolgan and Triphal.

Sanocrysin or gold and sodium thiosulfate was originally prepared by Fordos and Géllis in 1845. It has been improved on by Mollgaard and contains about 37.5 per cent gold and 26.2 per cent sulphur, which would correspond to the formula $3\text{Na}_2\text{S}_2\text{O}_3\text{Au}_2\text{S}_2\text{O}_3 \cdot 4\text{H}_2\text{O}$.

Triphal, one of the other preparations studied by us from a toxicological point of view, contains approximately 44 per cent gold and 7.1 per cent sulphur, and this corresponds to the chemical for-