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Response of the Anemia in Experimental Hypothyroidism to Liver Therapy.*

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Rabbits with thyroids removed approximately 3 weeks after birth develop an anemia which simulates clinical pernicious anemia in that the hemoglobin per cell count is relatively higher than in the normal adult. The R.B.C. are also larger than the normal adult R.B.C. Metamyelocytes and poikilocytoses are present. Feeding liver extract (Lilly) to these rabbits increases the R.B.C. and brings the hemoglobin cell ratio back to normal.

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Further Studies in Obstructive Pulmonary Atelectasis.*

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In some recent investigative work,[1] two factors were found essential in the experimental production of massive atelectasis of the lung in dogs, *viz.*, A straining type of respiration, and secondly, some form of obstruction to the bronchus of the lung lobe; either total or valvular. In this work an artificial means of obstruction was used, this obstruction being located in the primary bronchus of the lung lobe.

Either total or valvular obstruction, in the presence of a straining type of respiration, was followed by a massive atelectatic condition of the obstructed lung. If a quiet, normal type of respiration was exhibited, no resultant atelectasis was observed. An example was given of complete obstruction of a secondary bronchus, of 6 weeks' duration, with quiet respiration in which no atelectasis occurred.

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[1] Adams, W. E., and Van Allen, C. M., *Surg. Gyn. and Obstet.*, 1930, l, 385.

In carrying out some experiments with thermal and silver nitrate cautery,[2, 3] it was found that cauterization of a bronchus was followed by complete stenosis in from one to 2 weeks. If this stenosis was located in the primary bronchus of the lung lobe, that lobe was found to be completely atelectatic with the secondary bronchi and bronchioles filled with a mucogelatinous material. However, if the stenosis was located in one of the several divisions of the primary bronchus to the lobe, no resultant atelectasis occurred; only a filling of the secondary and tertiary bronchi and bronchioles distal to the stenosis with the mucogelatinous material.

Group A. 4 dogs. Silver nitrate or thermal cauterization of a secondary bronchus of a lung lobe. Sacrificed at the end of 2 to 6 weeks. Results: Total stenosis of secondary bronchus with no atelectasis distal to the stenosis.

Group B. 7 dogs. Silver nitrate or thermal cauterization of the primary bronchus of a lung lobe. Sacrificed at the end of 2 to 6 weeks. Results: Total stenosis of the primary bronchus with complete atelectasis of the lung lobe.

In view of these experiments it appears very probable there are communications between the smaller air passages, or more likely of the air sacs and cells of the many lobules of a lung lobe. It also appears that obstruction of the primary bronchus or all of its divisions is necessary for the production of massive atelectasis of the lung lobe. Furthermore, although a straining type of respiration appeared essential in the production of this condition within 12 to 24 hours, it does not appear to be essential for its production over a longer period of time.

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Histologic Observations on Experimental Chronic Gastric Ulcers in Rabbits.

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The experimental chronic gastric ulcers in rabbits, to be described, were obtained by making acute lesions in the stomach, which subse-

[2] Adams, W. E., and Livingstone, H. M., *Ann. Surg.*, 1930, xci, 342.

[3] Adams, W. E., and Livingstone, H. M., "Further Studies in Bronchial Injury and Repair," unpublished work.