longer.[7] Eaton, Martin and Beck[8] reported the hamsters susceptible to the viruses of meningopneumonitis and lymphogranuloma venereum.

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Blood Cultures from Pulmonary Artery and Aorta in Patient with Infected Patent *Ductus arteriosus.*

ARTHUR S. W. TOUROFF. (Introduced by G. Shwartzman.)

From the Laboratories of The Mount Sinai Hospital, New York City.

Operation, in cases of subacute bacterial endarteritis superimposed on patent *ductus arteriosus*, necessitates direct exposure of the pulmonary artery and aorta.[1, 2, 3] This offers an opportunity to take blood cultures directly from the above structures.

In a recent case, 14 ml of blood were drawn simultaneously from both the pulmonary artery and the aorta. Agar-plate cultures of the blood taken from the pulmonary artery revealed innumerable colonies of *Streptococcus viridans*. The aortic specimen contained 51 colonies per ml of blood. These quantitative determinations indicate that the bacterial content of the blood *entering* the lungs differs from that of the blood *leaving* the lungs (and traversing only the left side of the heart.).

Heretofore the existence of a pulmonary protective barrier, which removes infective material from the circulating blood, has been demonstrated directly only in experimental animals.[4-9] Furthermore, in cases of subacute bacterial endarteritis superimposed on patent *ductus arteriosus*, it has not been shown as yet whether in-

7 Broun, G. O., LeGier, M., Mezera, R. A., and Muether, R. O., PROC. SOC. EXP. BIOL. AND MED., 1941, **48**, 310.

8 Eaton, M. D., Martin, W. P., and Beck, M. D., *J. Exp. Med.*, 1942, **75**, 21.

1 Touroff, A. S. W., and Vesell, H., *J. A. M. A.*, 1940, **115**, 1270.

2 Touroff, A. S. W., and Vesell, H., *J. Thoracic Surg.*, 1940, **10**, 59.

3 Touroff, A. S. W., Vesell, H., and Chasnoff, J., *J. A. M. A.*, 1942, **118**, 890.

4 Wyssokowitsch, W., *Z. f. Hyg.*, Leipzig, 1886, **1**, 3.

5 Werigo, M., *Ann. l'Inst. Pasteur*, 1894, **8**, 1.

6 Bull, C. G., *J. Exp. Med.*, 1915, **22**, 475.

7 Aschoff, L., *Z. exp. Med.*, 1926, **50**, 52.

8 Christeller, E., and Eisner, G., *Beitr. Z. Path. Anat. u. z. Allg. Path.*, 1929, **81**, 524.

9 Seeman, G., and Theodorowitsch, W., *Ztschr. f. d. Ges. Exp. Med.*, 1929, **69**, 742.

fective material derived from vegetative foci within the *ductus* and the adjacent portions of the pulmonary artery, reaches the peripheral circulation by passing through the pulmonary circuit or by entering the aorta through the *ductus,* or both.

The observations described herein demonstrate directly, that: (1) The lungs play an important rôle in removing infective material from the circulating blood of humans; and (2) in cases of subacute bacterial endarteritis superimposed on patent *ductus arteriosus,* infective material enters the peripheral circulation, at least in part, through the pulmonary circuit.

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Glucoside Type of Cerebroside in the Spleen in Gaucher's Disease.

IRVIN S. DANIELSON, CLARK H. HALL AND MARK R. EVERETT.

From the Department of Biochemistry and the Department of Pediatrics, University of Oklahoma School of Medicine, Oklahoma City.

It has been generally assumed that the cerebroside found in the enlarged spleen characteristic of Gaucher's disease is the usual galactoside type of kerasin. The principal published evidence for this concept is the melting point of the phenylosazone prepared from the cerebroside hydrolysate.[1] However, Halliday, *et al.*,[2] proved by fermentation and by the properties of the phenylosazone that the kerasin-like cerebroside in one case of Gaucher's disease contained *d*-glucose rather than *d*-galactose. The spleen used by these investigators had been preserved in formalin for several weeks.

We wish to report the isolation of glucose-containing cerebroside from a fresh spleen which was removed surgically from a four-year-old girl with Gaucher's disease. The clinical diagnosis was confirmed by pathological examination of the spleen which weighed 530 g.

The cerebroside was isolated by the method of Kaye[3] (maceration of the spleen with plaster of Paris, extraction of the powdered mass with three parts of boiling 95% ethyl alcohol, filtration, and crystallization of the cerebroside by cooling the filtrate below 0°C). The

1 Lieb, H., *Z. physiol. Chem.*, 1924, **140**, 305; Lieb, H., and Mladenovic, M., *Z. physiol. Chem.*, 1929, **181**, 208.

2 Halliday, N., Deuel, H. J., Jr., Tragerman, L., and Ward, W. E., *J. Biol. Chem.*, 1940, **132**, 171.

3 Kaye, I. A., *J. Lab. Clin. Med.*, 1940, **25**, 1117.