unilateral opening is made with a trephine. The trephine described by Pencharz[5] is satisfactory. The opening is made larger with the aid of a small bone forceps. The zygoma is then removed to give the lowest possible entrance to the base of the brain. The operation can be performed without removing the zygoma, but it is advisable for the beginner to remove it. The dura is then cut and a small flexible spatula, preferably made from collodion, is passed under the temporal lobe of the brain to the region of the hypophysis. The oculomotor nerve interferes with a view of the hypophysis and may be cut. When this has been done very little retraction is now necessary in order to obtain a good view of the hypophysis. With the hypophysis exposed the diaphragma sellae is cut. For this purpose we have made from the point of a needle a very small sickle which was fused to the tip of a small glass rod. Another glass rod drawn so that the tip is very fine and curved is used for separating the posterior from the anterior lobe. One will find that the posterior lobe can be easily separated from the anterior lobe and removed intact. The two lobes may be removed if it is so desired.

Dandy, Reichert and others believe that the large mortality reported by earlier investigators from hypophysectomy on dogs and cats was due to trauma and hemorrhage. We have not been able to observe any ill effects from slight trauma to the brain from this operation insofar as the rat is concerned.

7156 C

Hematopoietic Reactions to Antimonyl Antimony.*

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The close chemical relationship between arsenic and antimony suggests that the latter substance might be used in place of arsenic in the treatment of abnormal leucocytoses. Meneghetti[1] concluded that a "true hemopathy" characterized by leucocytosis followed by leucopenia, a profound anemia, and marked normoblastosis could be produced after a single intravenous inoculation of colloidal antimony

[5] Pencharz, R., Thesis, University of California Library, 1932.

* Assisted by a grant from the Christine Breon Fund.

[1] Meneghetti, E., *Haematologica*, 1926, 7, 1.

sulfide. His experiments with tartar emetic, however, were incomplete. In a series of preliminary experiments using a freshly prepared 1% solution of potassium antimonyl tartrate we established a dose of 6 mg. per kilo bodyweight as the maximum tolerated initial dose for rabbits. When inoculated intravenously this dose produced a characteristic leucopenia without subsequent leucocytosis.

Normal adult rabbits were inoculated in the marginal ear vein with a freshly prepared 1% solution of potassium antimonyl tartrate. A complete blood count was done before and after each experiment. The total leucocyte and differential counts were done at intervals of one-half, one, 2, 4, 7, and 28 hours after inoculation. The blood films were stained with Wright's stain, and the platelet counts were done using Rees and Ecker's diluting fluid. After the completion of each experiment the animals were sacrificed and a histological study of the hematopoietic organs was made.

The results of 25 experiments using 9 animals are averaged in Table I. The corrected leucocyte and differential counts are given in absolute numbers of cells per cubic millimeter. It was found unnecessary further to analyze these data statistically, because there was very little variation between individual experiments.

TABLE I.
Hematopoietic Reactions after the Intravenous Inoculation of Potassium Antimonyl Tartrate.

	Before inoculation	Hours after inoculation ½	1	2	4	7	28
Hemoglobin % (Sahli)	80						85
R. B. C.'s (millions)	5.90						5.98
Total Leucocytes*	8940	3636	3602	4581	5511	7008	8969
P. M. N. Neutrophiles	3646	857	784	1710	3375	5053	4439
Filamentous	2734	676	613	1126	2150	3034	2985
Non-filamentous	908	181	171	584	1225	2019	1454
Lymphocytes, small	1785	980	1103	1159	687	640	1978
" large	1964	1007	990	848	730	700	1531
Monocytes	679	247	220	265	220	184	282
Eosinophiles	75	15	17	25	37	38	53
Basophiles	481	303	246	358	363	181	323
D-Cells	0	12	22	75	51	16	25
Smudges	337	212	220	142	148	234	341
Normoblasts	32	41	79	115	232	462	222
Platelets (thousands)†	513	599	500	464	536	518	543

* Leucocyte counts corrected for normoblasts.
† Platelet counts represent an average of 7 experiments.

Within 5 minutes after inoculation it was noted that the leucocyte count was reduced to about one-half of the normal and that the greatest depression occurred about one hour after inoculation. There is an initial granulopenia affecting the filamentous and non-

filamentous polymorphonuclear neutrophiles equally. During recovery there is a marked increase in the non-filamentous neutrophiles. There is a latent lymphopenia which reaches its maximum about 7 hours after inoculation. The monocytes are depressed and do not return to normal during the period of the experiment. A peculiar cell with pyknotic nucleus and intensely basophilic staining cytoplasm appears in about one-half hour, and reaches its maximum concentration approximately 2 hours after inoculation. This cell has been designated as the "D-Cell". It probably represents a degeneration form. There is noted a progressive increase in normoblasts which reaches a maximum after 7 hours. These are still present in appreciable numbers after 28 hours.

Summary. Potassium antimonyl tartrate produces a characteristic leucopenia without subsequent leucocytosis when administered intravenously to normal rabbits. It also produces a moderate normoblastic response. It does not affect the platelet count. It is suggested that antimony, like arsenic, might be used to depress abnormal leucocytoses of myeloid cells.

7157 C

In vitro Leprocidal Activity of Some Non-chaulmoogryl Compounds.*

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Little emphasis has been placed upon the *in vitro* bactericidal activity against *Mycobacterium leprae* of compounds other than the fixed and essential oils and various fatty acids examined by Walker and Sweeney, Schöbl, and Adams and his co-workers.[1] In view of the recent interest in the clinical use of non-chaulmoogryl compounds, particularly certain dyes, as antileprosy drugs, a report of

* Part of a cooperative study of the chemotherapy of leprosy conducted by the Hooper Foundation for Medical Research and the Pharmacological Laboratory of the University of California Medical School, San Francisco, and supported in part by the Christine Breon Fund for Medical Research.

1 Walker, E. L., and Sweeney, M. A., *J. Inf. Dis.*, 1920, **26**, 238; Schöbl, O., *Phil. J. Sci.*, 1923, **23**, 533; *Ibid.*, 1924, **24**, 23; Stanley, W. M., Coleman, G. H., Greer, C. M., Sacks, J., and Adams, R., *J Pharmacol. Exp. Therap.*, 1932, **45**, 121.