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Passive Sensitization with Maignon's Fraction of Anaphylactic Blood.*

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In a recent paper Maignon[1] reports the transmission of acquired hypersensitiveness in dogs by the injection of what we may tentatively call the proteose-peptone-amino-acid fraction of anaphylactic blood. We have attempted to confirm his findings. Maignon drew the blood of horse serum hypersensitive dogs directly into 4 volumes of 95% alcohol, dried and pulverized the resulting coagulum, extracted it with chloroform water, and reprecipitated with 95% alcohol. He obtained from each liter of anaphylactic blood about half a gram of a grayish white product. This product dissolved in physiological salt solution and injected into normal dogs rendered his dogs hypersensitive, the dogs giving apparently classical anaphylactic symptoms on subsequent intravenous injection with horse serum.

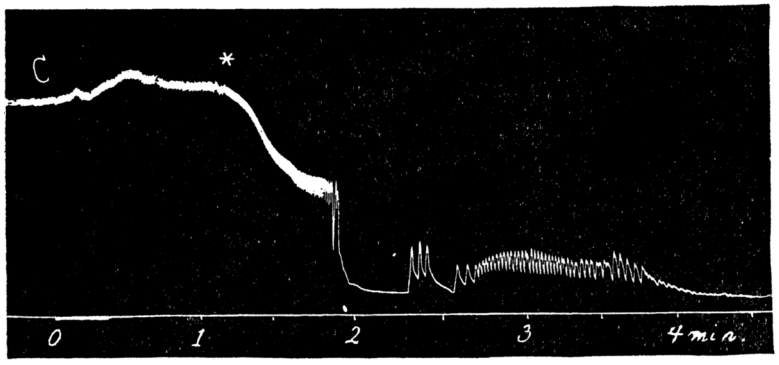

FIG. 1. PASSIVE ANAPHYLAXIS WITH MAIGNON'S PRODUCT.

8 kg. normal dog injected intraperitoneally with 0.75 gm. Maignon's product. Anaphylactic test 24 hours later. Heavy base line, intravenous injection, 8 cc. horse serum. C, changes in carotid blood pressure. *, cessation of respiratory movements.

A second normal dog injected with 0.35 gm. of the same product, gave a milder reaction of the same type; but with respiratory movements resumed at the beginning of the 4th minute and blood pressure restored to normal by the end of 12 minutes.

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We have applied Maignon's technic to 9 canine anaphylactic bloods and to emulsions of 6 hypersensitive livers. Eleven of the products thus obtained were wholly inert, giving no suggestion of passive hypersensitiveness even when injected in massive doses. Two of our blood products, however, and 1 liver product gave slight passive hypersensitiveness, and 1 blood product gave the severest anaphylactic phenomenon thus far observed in dogs. A kymograph record with this product is reproduced in Fig. 1.

The symptomatology and autopsy findings with this product, however, were not those of typical anaphylaxis. The outstanding symptoms were a sudden cessation of respiratory movements, accompanied by what was apparently an acute heart block. Death took place in 4 minutes. The precipitous fall in arterial blood pressure, the characteristic feature of typical canine anaphylaxis, was wholly absent in this and in all of our other tests with Maignon's product. On immediate autopsy the splanchnic area was found hyperemic. The hyperemia, however, was of a bright arterial type, not the characteristic cyanotic engorgement of typical anaphylaxis. The liver, for example, was of a bright cherry red color and not appreciably enlarged. On opening the chest, the lungs collapsed normally; no thrombi were found in the heart or in the larger blood vessels; the blood was normally coagulable. Typical anaphylaxis renders canine blood non-coagulable.

The probabilities are, therefore, that with Maignon's product we are not dealing with a true passive anaphylaxis, but with some atypical hypersensitive phenomenon, the nature of which we are at present wholly ignorant.

[1] Maignon, F., *Compt. rend. Soc. de biol.*, 1927, xcvi, 941.

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Some Experiments on the Etiology of Diabetes Mellitus.

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About a year ago, an interesting report was published by Bergey[1] in which the author claimed that he had been able to produce *diabetes mellitus* in rabbits by a single intravenous injection of a Berkefeld filtrate of the urine of diabetic patients. A striking feature in his