

Chromatographic Separation of Heparin and Chondroitin Sulfate.* (20327)

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In a recent communication, Rienitis(1) has contributed interesting and useful data concerning the electrophoresis of acid mucopolysaccharides on filter paper. Certain mixtures of acid mucopolysaccharides have been resolved by the method, but the separation of heparin and chondroitin sulfate was not accomplished, due to the slightly different mobilities of the substances. It is of interest to note that such separation can be achieved chromatographically. The writer's current investigations are concerned with acid mucopolysaccharides as found in biological materials of human and animal source. In the course of these studies, chromatographic tech-

niques have been used, the filter paper strips (Whatman No. 1, 44 cm) being stained by a method developed in this laboratory and similar to that used by Rienitis. The accompanying photograph (Fig. 1) shows the distinct separation of a mixture of chondroitin sulfate and heparin. The ascending chromatogram was developed with 25% propanol in M/15 phosphate buffer at pH 6.4 for 33 hours at 4°C. Heparin Sodium (Liquaemin; Organon, Inc.) and Chondroitin Sulfate (General Biochemicals, Inc.) were used in the present study. Results of the application of this technic in the investigation of biological materials will be incorporated in later reports.

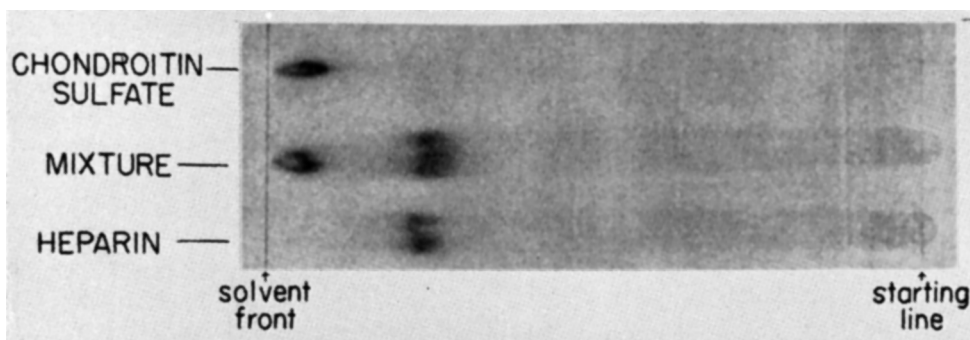


FIG. 1. Paper chromatographic separation of chondroitin sulfate and heparin.

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1. Rienitis, K. G., *Biochem. J.*, 1953, v53, 79.

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