ascending colon (Regoli & Vane, 1964). These tissues were superfused (Gaddum, 1953) at 5 ml/min with Krebs solution at 38° C. Ethyl alcohol extracts of ascites fluid contained prostaglandin-like activity when tested on the above tissues in the presence of various antagonists (Gilmore, Vane & Wyllie, 1968). Activity was also extracted from acidified fluid into ethyl acetate. After evaporation to dryness, the extract was redisssolved in Krebs solution and assayed. The presence of an E-type prostaglandin was confirmed: this assayed as $13{\cdot}6 \pm 2{\cdot}26$ (mean $\pm$S.E.M.) ng prostaglandin E_2 per ml ascites fluid. Thin-layer chromatography of the ethyl acetate extract using the AII solvent system (Gréen & Samuelsson, 1964) showed zones corresponding to prostaglandins E_1 and E_2. Prostaglandin-like activity was eluted from the plate and bioassayed; the zones gave similar activity to prostaglandins E_1 and E_2 with some traces of $F_{2\alpha}$.

To detect other pharmacologically active substances, ethyl alcohol extracts were submitted to paper chromatography. These results and those from various control experiments will be shown.

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A method for the determination of residual quantities of halothane in blood

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Blood levels of halothane, chloroform and trichloroethylene can be determined by a technique using a gas-liquid chromatographic column and an electron capture detector.

The anaesthetic agent is extracted from the blood with the solvent *n*-heptane. A small quantity of the extract (2·5 μl) is injected into a heated injection port and swept on to the columns by the carrier gas (nitrogen) and thereafter on to a detector. To determine the amount of the agent in the injected sample, the heights of the peaks produced are compared with those of known amounts of the agent dissolved in *n*-heptane. Three standards are necessary to define the calibration curve which is not truly linear.

The electron capture detector is extremely sensitive to most halogenated anaesthetics, halothane in particular. Blood halothane levels of the order of 1 μg/100 ml may be measured.

The degree of accuracy is high. When ten separate analyses of an identical blood sample containing halothane were compared, a mean concentration of 6·024 mg with

a standard deviation of 0·033 mg was obtained which gives a coefficient of variation of 0·5414%.

Because of the extreme sensitivity of the detector to halothane, the technique is uniquely suited for the determination of blood halothane levels in cases where the agent is present in only trace amounts. It is therefore being used to measure the uptake of halothane by anaesthetists in the operating theatre environment, to investigate the washout from the body of halothane after general anaesthesia and to determine the renal excretion of halothane.

The method has also been successfully used in the determination of plasma/red cell distribution ratios of both halothane and trichloroethylene.

The measurement of renal blood flow during anaesthesia by means of a single-shot urineless technique with ^{131}I-hippuran

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An investigation has been carried out into the suitability of the single-shot, urineless, technique in dogs for the estimation of renal blood flow during general anaes-

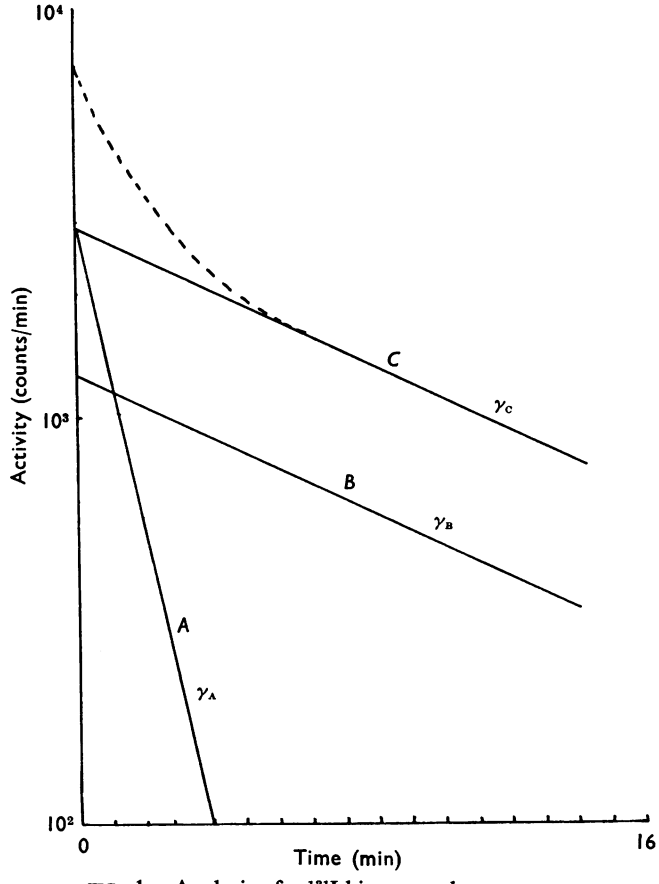

FIG. 1. Analysis of a ^{131}I-hippuran clearance curve.