

and physiological effect has been detected, although the methyl groups appear to be associated with lesser toxic effects. Several observations of physiological interest are described.

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Estimation of Ethanol in the Embalmed Brain.

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Methods for the quantitative determination of ethanol in the brain have required that the tissue be fresh. A method has been devised in the hope that ethanol may be estimated after embalming of the body. The procedure of Gettler and Tiber,¹ is modified as follows: The tissue is steam distilled. The distillate is slowly refluxed with H_2SO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$ for 30 minutes, prior to distillation. This completely oxidizes the formaldehyde and methanol to CO_2 and H_2O , but the oxidation of ethanol is carried only to acetic acid. After distillation the acetic acid is determined by titration against $\text{N}/20$ NaOH . The ethanol in the tissue is calculated by the formula: 1 cc. of $\text{N}/20$ $\text{NaOH} = 2.3$ mg. ethanol. By this procedure ethanol can be accurately determined in a standard mixture of ethanol, methanol, formaldehyde and water.

Following the preliminary chemical study, the investigation was extended to 4 series of rabbits. Ten rabbits were given 6 gm. ethanol per kilo weight, by stomach tube and were killed 5 hours later by the neck stroke. The ethanol content of the brain varied from 0.36% to 0.45% with an average of 0.40%. A second group of 10 rabbits received the same treatment but were embalmed before analysis of the brains for ethanol. The figures varied from 0.21% to 0.52%, with an average of 0.34%.

A third group of 5 rabbits were killed and embalmed without the administration of ethanol. The figures for this series were practically identical with the figures from a fourth series of 5 control rabbits which were killed and whose brains were analyzed immediately for ethanol, namely about 0.005%.

¹ Gettler, A. O., and Tiber, A., *Arch. Path. and Lab. Med.*, 1927, **3**, 75.