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STUDIES OF THE COMBINED EFFECTS OF CAFFEINE AND
ETHANOL

BY

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SUMMARY

The results of the acute toxicity studies in the rabbit show that caffeine and ethanol are additive in their lethal effects. The results of the biochemical and histopathological studies indicate similar lethal mechanisms as well. Overt liver damage was the principal finding.

Metabolism studies show that the disappearance rates of caffeine and ethanol remain mutually unaltered when administered concurrently to the rabbit.

The toxicities of caffeine and ethanol were found to be additive in the mouse, but the studies of 1-methylxanthine and ethanol showed a biphasic toxic interaction which ranged from antagonism to synergism as the proportion of ethanol increased.

Biochemical studies on a pooled blood sample from mice that survived 24 and 48 hours after the administration of 1-methylxanthine showed a greatly elevated urea nitrogen. This indication of kidney derangement was confirmed by histopathological examination which revealed an extensive lower nephron nephrosis.

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