

## Newer developments in chloramphenicol metabolism

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Following oral administration of  $^{14}\text{C}$ -labelled chloramphenicol (CAP) in the rat (30 mg/kg) the blood time curves obtained by gas chromatographic (Gazzaniga, Pezzotti & Ramusino, 1973) and radiochemical estimation appear to be strikingly divergent. By the gas chromatographic method, blood levels are in agreement with those obtained either chemically or microbiologically. On the contrary the time curve of blood radioactivity is completely different, with concentrations progressively rising until the 6th-8th h and thereafter staying practically unchanged for several days. Apparently this difference is due to a new CAP metabolite which is

devoid of microbiological activity and whose chemical nature has yet to be defined; it is, however, characterized by the property of establishing covalent bonds to proteins (Bonanomi, Krishna & Gillette, 1974).

It may be interesting to point out that a methylsulphonyl analogue of CAP shows, under the same experimental conditions, blood concentration curves identical in terms both of radioactive or of gas chromatographically estimated material.

### References

- GAZZANIGA, A., PEZZOTTI, E. & COTTA RAMUSINO, A. (1973). A rapid gas chromatographic method for the determination of thiamphenicol in body fluids and tissues. *J. Chromatogr.*, **81**, 71-77.
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