

Further Studies on Metabolism of Sulfur Compounds in Cystinuria.*

ERWIN BRAND AND GEORGE F. CAHILL.

From the Department of Chemistry, New York State Psychiatric Institute and Hospital and from the Squier Urological Clinic of the Presbyterian Hospital, New York.

Some recent experiments^{1, 2} on sulfur metabolism have been confirmed on another case of cystinuria (16-year-old female from a cystinuric family). *Cystine* (6.4 gm.), administered orally was almost completely (98%) oxidized to inorganic sulfate and did not increase urinary cystine excretion. *Cysteine* (3.5 gm.), on the other hand, was largely excreted as extra cystine (45%) and only a part of it was oxidized (38% of the extra sulfur). *Methionine* (dl, 6 gm.) was also largely excreted as extra cystine (40%) and partly (35%) as undetermined neutral sulfur,† while only a small amount (25% of the extra sulfur) was oxidized.

A preliminary experiment with 2.5 gm. of homocystine³ indicates that in cystinuria this amino acid is oxidized (92% of the extra sulfur) and does not give rise to extra cystine in the urine. The implications of this finding will be discussed upon completion of confirmatory experiments now in progress on another patient.

The cystine in the urine of this patient, as determined by our modification of the Sullivan method, increased with the ageing of the specimen in agreement with earlier observations.⁴

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¹ Brand, E., Cahill, G. F., and Harris, M. M., *PROC. SOC. EXP. BIOL. AND MED.*, 1933, **31**, 348.

² Brand, E., *Bull. N. Y. Acad. Med.*, 1934, **10**, 289.

† The analyses indicate the excretion of organic sulfur neither in SS nor SH form. It is possible that some unchanged methionine was excreted since the racemic amino acid was fed.

³ Butz, L. W., and du Vigneaud, V., *J. Biol. Chem.*, 1932, **99**, 135.

⁴ Brand, E., Harris, M. M., and Biloon, S., *J. Biol. Chem.*, 1930, **86**, 315.