

LIVER COMPOSITION IN KWASHIORKOR AND MARASMUS. José Méndez and Carlos Tejada. Institute of Nutrition of Central America and Panama (INCAP), Guatemala, C. A.

Livers taken post-mortem from 7 children with kwashiorkor (K), 8 with marasmus (M), and 8 apparently well nourished (N) were analyzed chemically. The final cause of death in most cases was acute bronchopneumonia. The nutritional status was assessed from clinical history, socio-economic data and direct examination. Body weight and length, thickness of the abdominal subcutaneous tissue and weight of the livers were also recorded. Results are expressed as per cent fresh tissue. Water content was significantly higher in M than in either K or N, 76.0 ± 0.7 , 63.5 ± 4.8 and 66.8 ± 3.0 g respectively. Ether extract was much greater in K and N than in M, 19.0 ± 5.2 , 13.1 ± 3.8 and 1.9 ± 0.2 g respectively. Protein was significantly greater in M than in K, 18.5 ± 1.1 and 15.2 ± 0.8 g respectively; its content in N was 17.0 ± 1.2 g. Lipid phosphorus and cholesterol were higher in N than in either M or K, 105 ± 11 , 71 ± 5 , 68 ± 7 for lipid phosphorus and 397 ± 32 , 280 ± 13 and 257 ± 30 mg for cholesterol respectively. The ash content was higher in M than in K, 1.37 ± 0.07 and 1.10 ± 0.07 g respectively; in N it was 1.29 ± 0.07 g. These results are closely correlated with the amount of gross and microscopic liver fat and are consistent with the biochemical evidences of fundamental differences between K and M. (Assisted by Nutrition Foundation Inc. grant 266 and National Institutes of Health H-2653).

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