BIBLIOGRAFIA LATINOAMERICANA

BRASIL

The relationship among infant birth weight and sex, and type of delivery (Relação entre peso ao nascer, sexo do recém-nascido e tipo de parto). — Arnaldo Augusto Franco de Siqueira, Florita Brickmann Areno, Pedro Augusto Marcondes de Almeida and Ana Cristina d'Andretta Tanaka (Faculdade de Saúde Pública da Universidade de São Paulo). Rev. Saúde Públ., S. Paulo, 15: 283-290, 1981.

In order to assess the influence of birth weight on the type of birth, two maternity hospitals whose patients were of different socioeconomic levels were studied. A total of 16,095 births was analyzed. It was discovered that the incidence of cesarean sections increased with the increase in birth weight in both hospitals, while in the private hospital the incidence was four times higher than in the hospital for the poor. No relation was found in those women who received private treatment, between type of birth and birth weight. Among those babies who weighed 2,500 g or less at birth, a significant predominance of girls was found, and for those who weighed more than 4,000 g there was a larger proportion of boys. 10 Ref.

The importance of the association of obesity and pregnancy (A importancia da associação obesidade e gravidez). — Ana Cristina d'Andretta Tanaka (Faculdade de Saúde Pública da Universidade de São Paulo). Rev. Saúde Públ., S.Paulo, 15: 291-307, 1981.

Characteristics of the evolution of pregnancy in obese women were studied for their effect on newborn infants. Two control groups were observed — one of normal weight pregnant women, and the other one, of obese. The variables selected were: the socioeconomic status of the family and the mother's age, height, arm circumference, pre-pregnancy weight, total number of pregnancies, parity, weight gain during pregnancy, obstetric complications, birth weight, and fetal vitality. Results showed that pregnancy in obese women differs from

that in normal-weight women and that they show a larger incidence of obstetric complications. Children of obese mothers had a higher mortality rate principally in the perinatal period; moreover, there was also a higher rate of prematurity and a higher proportion of overweight babies among obese mothers. As a result, the distribution of the curve of the birth weight of infants of obese mothers, was higher than that of infants of normal-weight mothers. The conclusion reached was that whenever a pregnant obese woman reduced food intake, with a resultant insufficient weight gain, intrauterine growth was affected. Thus, it follows that pregnancy is not the best time for the obese mother to lose weight; for this reason, it is important that she receive adequate guidance in regard to diet. Obesity, therefore, is a contributor factor to high-risk pregnancy which can affect both mother and child. 38 Ref.

Hospital morbidity and mortality among children under one year of age. Ribeirão Preto, SP, Brazil, 1975 (Morbidade e mortalidade hospitalar de crianças menores de um ano, em Ribeirão Preto, SP, Brasil, 1975). — Marilisa Berti de Azevedo Barros (Departamento de Medicina Preventiva e Social da Faculdade de Ciencias Médicas da UNICAMP, Campinas, SP, Brasil). Rev. Saúde Públ., S. Paulo, 15: 308-320, 1981.

The data of 1975 of hospital morbidity and mortality among children under one year of age were studied in Ribeirão Preto, S. Paulo, Brazil. The hospitalization rate for these children, excluding newborns, was very high —437 per 1,000— and was higher for boys than for girls. Diarrhea, dehydration, and pneumonia accounted for 80.36% of admissions. There were, however, evident differences in morbidity related to categories of hospitalization. Infectious diseases were responsible for the largest portion (75%) of hospital deaths among these children, and mortality was over three times greater for indigent children than for those whose care was remunerated. 18 Ref.

Vitamin A deficiency in institutionalized children in the capital of the State of S. Paulo, Brazil (Hypovitaminose A em pré-escolares internados em uma instituição na capital do Estado de São Paulo). — Donald Wilson, Maria José Roncada, Adamo Lui Netto and Olderigo Berretta Netto (Departamento de Nutrição da Faculdade de Saúde Pública da Universidade de São Paulo, Faculdade de Ciências Médicas dos Hospitais de Santa Casa de Misericordia de São Paulo and Hospital Infantil

da Cruz Vermelha Brasileira). Rev. Saúde Públ., S. Paulo, 15: 395-400, 1981.

Children from 2 to 6 years of age from an agency for the welfare of minors were studied clinically and biochemically for vitamin A deficiency. Clinical examinations showed a very high prevalence of cutaneous xerosis (75.8%) and not so high of follicular keratosis (18.3%). Unaided eye examinations showed a xerosis conjuctivae prevalence of 20.7%, whereas with the aid of 1% Rose Bengal staining, prevalence rose to 31.7%. Biochemical examinations showed that 39.4% of the subjects presented vitamin A plasma levels of 10 μg/100 ml or less, and 73.9%, 20 μg/100 ml or less. 8 Ref.

Vitamin A deficiency in communities of the State of S. Paulo, Brazil (Hipovitaminose A em comunidades do Estado de São Paulo). — Maria José Roncada, Donald Wilson, Rosa Nilda Mazzilli and Yaro Ribeiro Gandra (Departamento de Nutrição da Faculdade de Saúde Pública da Universidade de São Paulo). Rev. Saúde Públ., S. Paulo, 15: 338-349, 1981.

Eleven communities of the State of S. Paulo, Brazil, were surveyed for vitamin A deficiency, through a food consumption survey, clinical survey, and biochemical survey. The food consumption survey showed very low consumption of vitamin A-rich foods, both animal and vegetable. The biochemical survey revealed a high prevalence of low and deficient plasma levels of vitamin A (ICNND classification). The clinical survey demonstrated low prevalence rates for ocular lesions, especially the more severe ones. Although neither blindness nor severe ocular lesions are a public health problem, the majority of populations are at risk of such lesions, becoming a problem in the future. 8 Ref.

COLOMBIA

Estandarización de métodos analíticos sencillos para la determinación de lisina disponible, triptofano y metionina. — María Inés Mejía de Cuevas y Nancy Correa Lozano (Instituto de Investigaciones Tecnológicas (IIT), Bogotá, Colombia). Tecnología (Rev. del citado Instituto), No. 128, Bogotá, Colombia, noviembre-diciembre, 1980, p. 27-44.

En la realización del presente trabajo se seleccionaron métodos relativamente sencillos para la determinación de lisina disponible, triptofano y metionina.

Para la determinación de lisina disponible se seleccionó un método

que se basa en la capacidad que tienen los grupos amino libres de la proteína, de unirse con el naranja ácido 12. Durante la estandarización del método en el IIT, se utilizaron muestras que habían sido previamente analizadas por el autor del método (K. J. Carpenter). Las diferencias entre los valores notificados y los obtenidos en el IIT fueron inferiores al 4o/o en todos los casos.

En la evaluación de triptofano se seleccionó un método de análisis aplicable a todo tipo de alimentos, el cual se basa en la reacción del triptofano presente con el p-dimetilaminobenzaldehído. En cereales se obtuvo una recuperación de 92 ± 2o/o y en muestras con alto contenido de proteína se encontró una recuperación de 96 ± 2o/o.

Para el caso de la metionina se encontró que el método más utilizado es el del nitroprusiato de sodio. El procedimiento estudiado es aplicable a muestras con alto contenido de proteína como harina de pescado, harina de soya, algodón, etc., productos en los cuales se obtuvo una recuperación de 96 ± 2o/o.

CHILE

Capacity of the Chilean mixed diet to meet the protein and energy requirements of young adult males. — Enrique Yáñez, R. Uauy, D. Ballester, G. Barrera, N. Chávez, E. Guzmán, M. T. Saitúa and I. Zacarías (Institute of Nutrition and Food Technology, University of Chile, Santiago, Chile). Brit. J. Nutr., 47(1): 1-10, 1982.

1. The capacity of the Chilean mixed died to meet the daily protein and energy needs was tested in eight subjects aged from 20 to 31 years using the nitrogen balance method. This diet was tested at the protein levels of 0.40, 0.55 and 0 70 g/kg body-weight per day.

2. An egg reference diet providing 0.30, 0.45 and 0.60 g protein/kg per day was also assayed.

3. The mean daily energy intake was 207 kJ/kg per day according to subjects previous intake and activity pattern.

4. The N balance response to each dietary protein level was taken as a measure of adequacy of protein intake, and regression analyses of N balance (Y) v. N intake (X) were calculated to estimate protein needs. The equations found were $Y = 0.70 X - 68.7$ for the egg diet, and $Y = 0.74X - 92$ for the mixed diet.

5. From these equations the mean protein requirements for equilibrium were estimated to be 0.61 g/kg for egg and 0.78 g/kg for the mixed diet.

6. If the coefficient of variation is 15, the protein requirement for N equilibrium of 97.5o/o of the population would be 0.8 g/kg per day for egg and 1.0 g/kg per day for the mixed diet. 21 Ref.

Obligatory urinary and faecal

nitrogen losses in young Chilean men given two levels of dietary energy intake. – R. Uay, E. Yáñez, D. Ballester, G. Barrera, E. Guzmán, M. T. Saitúa and I. Zacarías (Institute of Nutrition and Food Technology, University of Chile, Santiago, Chile). Brit. J. Nutr., 47 (11): 11-20, 1982.

1. The obligatory nitrogen losses were measured in young adult males of the low socio-economic group, consuming an N-free diet at 192kJ (46 kcal)/kg per day from day 1 to 10 and 243 kJ (58 kcal)/kg per day from day 11 to 18.

2. All subjects, except one, lost weight compatible with N loss.

3. A kinetic evaluation of the results showed that the asymptotically derived urinary N loss after stability had been reached was 35.8 mg N/kg/per day. The mean time to stability was 6.5 days. The subjects showed a trend toward decline in N loss while consuming the high-energy N-free diet.

4. The obligatory faecal N loss for days 1–10 was 16.1 mg N/kg per day and 8 mg N/kg per day and days 11–18.

5. Based on the factorial approach the total obligatory N loss of our subjects, for the initial 10 days was 57.5 mg N/kg per day. 16 Ref.

Effect of supplemental methionine of lupine diets on hepatic RNA polymerases activity and protein efficency ratio in weanling rats at short periods of feeding. – Fernando Garrido, María Lobos, Enrique Yáñez and Marco Perretta (Instituto de Nutrición y Tecnología de los Alimentos, Universidad de Chile, Santiago, Chile). Nutr. Reps. Internat., 25 (2):259-268, 1982.

Rats were fed diets containing casein (control group), Lupinus albus protein and Lupinus albus protein plus 0.2% DL-methionine for 2, 4, 6, 7, 14, 21 and 28 days. The effects of diets on the activities of RNA polymerase I and II from isolated liver nuclei were determined. Methionine deprivation decreased RNA polymerase II activity since 4 d being very low at 21 and 28 d while methionine supplementation significantly increased the enzyme activity at 7 d. RNA polymerase I presented a non fluctuant pattern with the three diets until 28 d in which supplemented diet increased the activity while L. albus protein alone decreased the activity. Nutritional parameters (body weight gain, food intake and PER) diminished since 2 d of feeding. It is suggested that 7 d is the earliest time to measure the biological value of dietary proteins using biochemical and nutritional parameters which reflect a more direct, complete and exact information of the protein synthesis that

occurs in vivo. 11 Ref.

GUATEMALA

Protein quality of vegetable proteins as determined by traditional biological methods and rapid chemical assays. — Arlene Wolzak, Luiz G. Elías and Ricardo Bressani (Institute of Nutrition of Central America and Panama, Guatemala, Guatemala, C. A.). J. Agr. Food Chem., 29: 1063-1068, 1981.

Traditional biological assays were compared with chemical estimates of protein quality by using different vegetable proteins. The comparability and reproducibility of protein efficiency ratio (PER), net protein ratio (NPR), and in vivo protein digestibility were tested in two experiments at different times. A highly significant correlation was found between PER and NPR in both experiments, although a higher correlation was observed in the second, in which a smaller and more homogeneous group of samples was tested. The PER showed the best reproducibility. Amino acid scores, essential amino acid indexes, an C-PER values were calculated. PER correlated better with chemical parameters than with NPR. The amino acid score, though an imperfect indicator, still seems to be the best of the chemical parameters studied. C-PER values showed a highly significant correlation with PER for the complete group of samples (r = 0.871; n = 33), although they overestimated the protein quality of leguminous seeds and processed samples and underestimated that of mixtures supplemented with animal protein. 24 Ref.

Evaluación del fruto del caulote *(Guazuma ulmifolia,* Lam) en la alimentación de terneros. — Ricardo Bressani, Jorge Mario González y Roberto Gómez-Brenes (Instituto de Nutrición de Centro América y Panamá, Guatemala, Guatemala, C. A.). Turrialba, 31(4): 281-285, 1981.

In order to evaluate caulote fruit *(Guazuma ulmifolia,* Lam) as a feedstuff, Holstein steers were fed corn silage alone and supplemented with a concentrate containing 0, 15, 30 and 45% of caulote flour. Levels up to 30% did not result in changes in animal performance, but higher levels decreased silage consumption, which resulted in lower daily gain weights. Digestibility of dry matter determined in 9 steers was the same for the control ration and for the ration containing 55.8% of caulote flour, but digestibility of protein and crude fiber was lower for the latter ration. It is proposed that caulote may constitute an additional ingredient

for animal feeding. 6 Ref.

MEXICO

Guías éticas internacionales para la experimentación en humanos. — (Editorial). Gaceta Médica de México (Organo de la Academia Nacional de Medicina), 117(10): 387-389, 1981.

Este Editorial, que nos es imposible publicar en su totalidad, concierne a la XIV Conferencia Internacional de Etica Médica y Educación Médica que tuvo lugar del 1o al 3 de diciembre de 1980 en la ciudad de México, bajo los auspicios de la Organización Mundial de la Salud, en colaboración con la Academia Nacional de Medicina. En esa oportunidad, el Dr. John F. Dunne presentó por primera vez, ante un ambiente médico general, la proposición de unas guías éticas internacionales para la experimentación en el ser humano, un resumen de cuya propuesta se reseña seguidamente.

La aplicación generalizada del método científico experimental en la investigación médica es un producto del siglo XX. Muchas de las investigaciones básicas pueden ser efectuadas en modelos animales; sin embargo, por diversas razones no se puede lograr una fidelidad absoluta en estos modelos y todos los procedimientos nuevos, tanto de diagnóstico como profilácticos y terapéuticos, deben eventualmente ser evaluados en seres humanos.

En el pasado, tales estudios habían sido realizados sobre todo en los países desarrollados y estaban dirigidos hacia enfermedades de importancia mundial. No obstante, la toma de conciencia universal acerca de las ventajas de medidas tales como el control de las enfermedades transmisibles y el de la explosión demográfica, explica que cada vez tenga lugar más investigación médica en los países en desarrollo. Parecen existir presiones para que sean estas naciones las que realicen el estudio de aquellos problemas, en vista del elevado costo de estas investigaciones cuando se llevan a cabo en países desarrollados.

Cobra pues, importancia, considerar si las directivas legales y administrativas aseguran el bienestar y los derechos humanos de los sujetos sometidos a investigaciones médicas, de conformidad con los principios éticos prescritos en los códigos internacionales, tales como el Código de Nuremberg (1947) o la Declaración de Helsinki, modificada en Tokio en 1975.

Una revisión preliminar de los diversos aspectos éticos de la investigación en seres humanos requiere la consideración de los siguientes aspectos: 1) los objetivos y el enfoque de la investigación en seres humanos; 2) la manera de determinar las políticas de investigación; 3) las consideraciones específicas que deben aplicarse a la investigación en los países en desarrollo; 4) el meca-

nismo de obtención y las limitantes del consentimiento informado; 5) las condiciones que deben llenarse en la investigación que involucra a niños; 6) los requisitos necesarios para las investigaciones en mujeres embarazadas; 7) las limitaciones de la investigación en enfermos mentales; 8) las condiciones de las investigaciones en salud pública; 9) los requisitos que deben seguirse en revisiones prospectivas independientes; y 10) las bases para la compensación por daño personal ocurrido como resultado de la investigación.

En todas estas consideraciones, reza el Editorial, se sustentan las guías provisionales que la Organización Mundial de la Salud desea someter a discusión y valoración por parte de la clase médica.

Se adentra el Dr. Dunne, en las guías provisionales establecidas para este propósito, en un total de once, las cuales comenta por separado.

PERU

Evaluación de cuatro métodos gas-cromatográficos para determinar ácido oleanólico en quinua *(Chenopodium quinoa*, Willd, Var. Kancolla). — Walter Augusto Ruiz y Jaime Amaya Farfán (Instituto de Investigaciones Agro Industriales, La Molina, Lima, Perú, y Universidade Estadual de Campinas, São Paulo, Brasil). Boletín de la Sociedad Química del Perú, 46: 76-84, 1980.

Se trató de adaptar un método gas-cromatográfico para determinar el contenido de ácido oleanólico en la quinua y, en forma indirecta, estimar el contenido de saponinas que presenten tanto la quinua sin procesar como la procesada. Este es un procedimiento simplificado de extracción con gradiente de etanol-butanol-agua, seguido de hidrólisis ácida, extracción clorofórmica de la fracción sapogeninas, su trimetilsilil derivatización y determinación por cromatografía gas líquida, el que ofreció ventajas en la determinación del citado ácido. El método demostró ser de posible utilidad en la determinación rutinaria de ácido oleanólico en las saponinas de la quinua kancolla.

Se hace necesario la obtención de datos sobre los niveles del ácido oleanólico en las demás variedades de quinua. Por otra parte, los tenores de ácido oleanólico podrían ser considerados como índice del contenido de saponinas de la quinua, por lo que se debe establecer su correspondencia directa. 4 Ref.