

- 338 Case of Spider Bite With Severe Hemolytic Reaction. S.A. Minton, Jr., and C. Olson. Pediatrics 33, 283 (Feb. 1964).

A boy aged 7 developed marked jaundice and hemoglobinuria about 24 hours after a bite by a spider. There was a precipitous drop in hemoglobin to 7.3 g./100cc. and leucocytosis of 55,400. Improvement followed administration of intravenous alkaline 5% dextrose solution and whole blood transfusion. ACTH and prednisone had no discernible effect. A hemorrhagic and necrotic lesion developed at the bite and was present 19 days later. The spider responsible for the bite was not obtained, but a specimen of Loxosceles reclusa was collected in the patient's home, and it is considered the probable culprit. This is the first report of this spider from Indiana and represents a northeastern extension of the known range.

-- J. Am. Med. Assn. References & Reviews

- 339 The Mechanism of Carcinogenic Factors. H. Dannenberg. Deut. Med. Wochschr. 88, 605 (1963). German.

The author maintains that the mutation theory of carcinogenesis far from being disproved by recent research is actually confirmed by newer understanding of the mechanism of action of the carcinogens. He discusses the manner in which various agents such as organic and certain inorganic compounds, physical factors (ultra-violet and ionizing rays) and finally tumor viruses can cause normal cells to become cancer cells. The genetic code of a cell lies in the desoxyribonucleic acid of the nuclear chromosomes and the ribonucleic acid of the cytoplasm. Any change produced by chemical or physical means in one or the other nucleic acid sites will, in effect, be a mutation. The intrusion of virus into a cell alters its nucleic acid composition. X-ray and ultra-violet rays are known to cause alterations of the desoxyribonucleic acid, considered to be reversible after exposure to small amounts but irreversible on higher exposure. Similar effects are known to result from the action of organic and inorganic chemical substances on the genetic material in the cells. This revival of the mutation theory of carcinogenesis in a modern version may help toward the development of a unifying concept of the pathogenesis of neoplasia.

-- Can. Med. Assn. J. Absts.

- 340 Infection Hazards in Swimming Pools. D.M. McLean. Pediatrics 31, 811 (1963).

Several Toronto swimming and wading pools, and bathing areas along Lakes Ontario, Erie, and Huron were studied using various parameters. These included determinations of concentrations of coliform bacteria, Escherichia coli, Streptococcus fecalis and viruses; levels of ammonia nitrogen, organic nitrogen and chloride; and amount of chlorine present as disinfectant in the pools. Enteric bacteria were virtually absent from pools, having detectable free chlorine; however, high bacterial counts were found in unchlorinated pools and lake waters. Viruses were not found in any location studied. Chemical evidence of pollution was greatest in recirculating swimming pools, less in overflow — refill pools, and least in freshwater lakes with their infinite dilution. In the Hamilton area where bacterial counts and amount of nitrogen were very high, the relative lack of Escherichia coli and Streptococcus fecalis strongly suggests that this gross pollution has arisen from extra-human sources, such as dead birds and fish.

-- Can. Med. Assn. J. Absts.

- 341 Circulatory Effects of Chronic Pulmonary Emphysema. T.O. Evans, L. Van Der Reis, and A. Selzer. Am. Heart J. 66, 741 (Dec. 1963).

A series of 59 patients with moderately severe and severe pulmonary emphysema was studied while at rest and during a standardized exercise test at the time when they were in a clinically stable state. These patients represented a broad spectrum of disturbances from normal to grossly abnormal in respiratory function. Findings of arterial pressures, pulmonary vascular resistance, cardiac output, and arterial oxygen saturation, were subjected to a statistical analysis for determining relationships between arterial oxygen saturation and pulmonary arterial pressure which shows that pulmonary hypertension is

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