off groups of peripheral zone cells from adjacent lobules and are surrounding them. These features are characteristic of primary biliary cirrhosis and long-standing obstructive jaundice of all aetiologies, whether intrahepatic or extra-hepatic."

The patient made an uninterrupted recovery and left hospital five weeks later with her jaundice much diminished and her pruritus hardly worrying her. She was given a three-weeks course of streptomycin, 1 g. daily, vitamins, and a full diet.

The pruritus returned rather severely in April, 1952, disturbing her sleep, and the jaundice increased. She was seen by Dr. Sheila Sherlock at the Postgraduate Medical School of London, who advised testosterone propionate, 25 mg., sublingually daily, and an increase in the vitamin replacement therapy. The pruritus was quickly relieved, and the patient kept well until August, when on holiday. On admission to Hammersmith Hospital she was found to be severely anaemic, having had haemorrhage from her alimentary tract.

Summary

A rare disease is described in which the differential diagnosis can be settled only by an exploratory laparotomy and a biopsy of the liver.

Little is known of the aetiology, and at present treatment is unfortunately purely symptomatic. It is interesting to note that usually the condition arises in women round about the age of 40, which suggests the possibility of an endocrine factor.

The prognosis is gloomy in that there has been no recorded case of recovery, and the disease proceeds on a relentless course with occasional intermissions. Death may occur after only two years, although Ahrens *et al.* record that patients of theirs are still alive after eleven years.

We are indebted to Mr. J. Troup, who undertook the exploratory laparotomy and the biopsy of the liver which enabled the diagnosis to be established.

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Medical Memorandum

A Case of Acute Diphenhydramine Hydrochloride Poisoning

The purpose of this article is twofold—to draw attention once again to the danger which antihistamines hold for young children, should the container be left lying about, and to point out that the naked-eye appearances at necropsy can simulate those of bronchopneumonia. A mistaken report of bronchopneumonia could arise if no histological sections were to hand, and if for any reason it were not known that a harmful substance had been eaten.

CASE REPORT

A mother, coming downstairs at 4 p.m. one day after an absence of about one hour, found a spilled bottle and several pills scattered about the floor. During her absence her youngest son, a perfectly healthy child of 2 years 7 months, had been caught eating some of the pills by an elder brother. The number of pills in the bottle before the incident was unknown, and so the number actually eaten was never discovered. The child ate a normal meal at

about 5 p.m., and continued apparently perfectly well until shortly after being put to bed at 6.15 p.m. He then began to roll his eyes and wave his arms about. His condition rapidly worsened; he became extremely excitable, and began having "fits." He was then removed to hospital, where he was noted on admission at 7.30 p.m. to be extremely cyanosed, and to be having repeated convulsions. The stomach was washed out once or twice and oxygen administered. Death occurred at 8.40 p.m. the same evening.

Post-mortem Findings.—At the time the necropsy was performed it had been incorrectly reported that the child had swallowed a few calcium gluconate tablets, which would, of course, have no harmful effects. There were scattered Tardieu's spots over the visceral pleura of both lungs. The trachea was somewhat congested, and contained a small quantity of blood-stained watery fluid. The lungs themselves presented a striking appearance: dark-purple depressed areas alternated with paler emphysematous areas, but portions of the dark areas sank in water. Apart from a few flecks of white powder adhering to the mucous membrane of the stomach the gastro-intestinal tract was normal. Both the cardiovascular and the urogenital systems were normal. The liver had moderate cloudy swelling only. The spleen showed some venous congestion. It was thought at this stage, on the basis of these naked-eye appearances, that death had resulted from bronchopneumonia. Microscopically, the brain showed capillaries somewhat dilated, and in the lungs the dark-purple areas were seen to be due to massive haemorrhages into the interalveolar spaces and the alveolar lumina. There was a moderate desquamation of the epithelium of the smaller bronchioles. The lighter areas showed a patchy emphysema. The myocardium, kidney, and liver showed only a slight cloudy swelling.

Chemical Analysis.—This showed the presence of a small quantity of a basic substance giving the chemical reactions of diphenhydramine hydrochloride ("benadryl") in samples of blood, urine, and stomach washings; it was also isolated from the intestines, stomach, brain, liver, lungs, spleen, heart, and kidney. The total amount present was small, and was contaminated with other material, so that no opinion could be given of the amount of diphenhydramine hydrochloride absorbed.

COMMENT

In both clinical and pathological aspects this case appears to have followed the pattern of the cases reported by Tobias (1949) and by Miller and Pedley (1950). The onset of symptoms was delayed by about two and a half hours, and survival lasted about four hours after the taking of the drug. Although there was little catarrhal discharge, the mode of death was clearly asphyxial, as demonstrated by convulsions and cyanosis, Tardieu's spots, and lung lesions found after death. Such a severe haemorrhagic manifestation in the lung, and, with the possible exception of the spleen, not marked elsewhere, suggests the lung as the susceptible organ.

Although no mechanism has yet been suggested to account for the poisonous effects of antihistaminic compounds, it is perhaps interesting that the salient pathological lesion, an interalveolar and intra-alveolar haemorrhagic oedema of the lung, is extremely suggestive of a histaminic effect. Histamine and antihistamines are able to induce or influence variations in capillary diameter and permeability, and it is not difficult to imagine lesions such as the one described arising from some imbalance between their tissue concentrations.

I wish to thank Mr. L. C. Nicholl, of the Forensic Science Laboratory, Wakefield, for permission to publish his report on the chemical analysis.

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