

nals. Many of the alveoli of the lungs contained coagulated serum and red blood cells. The mucosa of the stomach was intact. The remaining gastric wall showed a recent diffuse hemorrhage with many red blood cells present. A potassium ferricyanide stain showed a large amount of iron pigment deposited in the mucosa of the stomach. Both adrenals showed a recent hemorrhage located for the most part in the region of the medulla. A postmortem blood count showed 68 per cent lymphocytes, 29 per cent polymorphonuclear neutrophils, 2 per cent eosinophils and 1 per cent monocytes. An imprint of the bone marrow from the sternum showed a normal appearing marrow with active hemopoiesis. Megalokaryocytes were present. The anatomic diagnosis was recent hemorrhage in the gastric wall and adrenals and edema of the lungs. Death was attributed to amphetamine sulfate poisoning." 5 references.

J. C. M. C.

BAREFOOT, S. W., AND CALLAWAY, J. L.: *Exfoliative Dermatitis Due to Phenobarbital: Report of a Case with Recovery*. Ann. Int. Med. 18: 105-110 (Jan.) 1943.

"In the Duke Hospital Clinic cutaneous manifestations of toxicity from barbiturates have been rare, and this report deals with the only recognized instance of any clinical consequence. . . . In the literature we have found 13 cases which appear to have been examples of true exfoliative dermatitis following the ingestion of barbiturates, and in 10 of these the outcome was fatal. . . .

"Mrs. I. B., a 58-year-old white housewife, was admitted to Duke Hospital on April 4, 1940. Her complaint was desquamating dermatitis with onset 10 days previously. . . . Ten days prior to admission, the patient noticed that her face seemed to be sunburned,

and on the following day there was erythema of the entire body. She consulted her physician who advised her to discontinue the 0.032 gr. tablets of phenobarbital three times daily which he had prescribed five days previously and gave her soothing lotions to apply locally. Severe generalized pruritus developed, and within two or three days after the onset there was considerable exfoliation and the corners of the mouth and palms became fissured. . . . During the first week in the hospital, the patient had a low grade fever which was seldom above 38° C. After the first week, the temperature was normal. By the end of the first hospital week the skin over the entire body was exfoliating. After another week the exfoliation practically subsided and the skin gradually assumed a normal appearance. Approximately one week after admission the patient developed a mild bilateral conjunctivitis, which was treated with the instillation of a 2 per cent solution of boric acid and subsided within a period of 10 days. Local treatment of the skin consisted of starch baths and soothing lotions containing large amounts of olive oil. Ten cc. of a 10 per cent solution of calcium gluconate intravenously, and 10 cc. of autogenous blood intramuscularly were administered on alternate days. She was also given concentrates of all the known vitamins as well as iron. . . . She was discharged May 9, 1940, with a diagnosis of exfoliative dermatitis of unknown origin. The cutaneous manifestations had completely subsided at the time of discharge. . . .

"On June 4, 1940, about one month after discharge, the patient appeared in the Out Patient Clinic complaining of generalized pruritus. There was generalized erythema of the skin and the eyelids were edematous. She stated that the onset had occurred two days previously after she had taken 0.032 gram of phenobarbital on the

preceding night. This was the first time that she had taken any barbiturate since leaving the hospital. With this information, we for the first time felt justified in attributing the previous episode to the ingestion of phenobarbital. . . .

"Clinical and postmortem studies have offered no satisfactory explanation in the majority of the fatal cases as to the cause of death." 16 references.

J. C. M. C.

CASSELS, W. H.: *Considerations Regarding the Depth of Anesthesia*. Illinois M. J. 83: 46-50 (Jan.) 1943.

"The chief purposes of anesthesia are to abolish pain, to prevent the patient from moving, to obtund certain troublesome reflexes, and to produce muscular relaxation. These conditions vary with the depth of anesthesia. . . . I will limit myself to the terms light and deep anesthesia. The stage of surgical anesthesia is entered when the eyelid reflex is abolished. . . . Loss of the lid reflex may be taken as an indication that the patient will have no consciousness of pain, although he may show some reflex reaction to stimulation. About this level, also the gagging and vomiting reflexes are obtunded. For smooth anesthesia these reflexes must be kept obtunded. In light surgical anesthesia, provided there is no respiratory obstruction, the breathing is deep and regular. As deep anesthesia is approached, intercostal paralysis gradually develops, and in very deep anesthesia the breathing is carried on entirely by the diaphragm. . . . As long as there is an adequate respiratory volume, one can be sure that the anesthesia is not too deep. . . . As anesthesia progresses, muscular relaxation increases. This is the chief indication for deep anesthesia. Not all anesthetics are capable of producing deep anesthesia. Ni-

trous oxide and ethylene can produce only very light anesthesia. . . . Overdosage with nitrous oxide or ethylene does not result in the usual effects of deep anesthesia but involves such reduction in oxygen that serious oxygen want ensues. . . . Muscular contractions, laryngeal stridor, retching, rapid breathing, and increased pulse rate, though suggestive of too light anesthesia, may be the result of oxygen want. Cyanosis is not always present. If the mistake is made of giving more of the anesthetic agent, serious results may ensue.

"Ether, chloroform and cyclopropane are all capable of producing deep anesthesia, although cyclopropane usually produces less relaxation. Intravenous anesthetics, evipal or penthal sodium, can produce deep surgical anesthesia, but are less reliable and more difficult to control. Avertin . . . can produce deep anesthesia, but, since the required dosage has to be estimated beforehand, the resultant depth is obviously uncontrollable. . . . A simple rule is that the deeper the anesthesia required the less sedative should be given. . . . While the endotracheal technic has many other uses unrelated to the depth of anesthesia, it is of great value in cases of abdominal surgery where deep relaxation and freedom from the straining caused by respiratory obstruction are important. . . . If the anesthetist inadvertently lets the patient come up to the verge of the third stage, the surgical trauma may affect the patient's nervous system, causing more tendency to shock. Even more troublesome may be the return of certain reflexes. Vomiting may occur. . . . Gagging and laryngospasm may develop with respiratory obstruction, oxygen want, etc., necessitating the administration of irritating concentrations of the agent. . . . Another aspect of too light anesthesia is that it may hamper the surgical procedure. . . . Deep anesthesia