

almost any standard type unit can be used. Some of the advantages of this hood over the large oxygen tent are accessibility of the patient to the many nursing procedures that are necessary in an acutely ill patient, such as, intravenous medication, electrocardiograms, bed bath. The authors state that the visibility through this hood is good, and that some patients have been able to read without eye strain. Patients with a great deal of expectoration or who are vomiting are not handled well in this type of hood. If the motor stops and the patient is left in the hood they will accumulate carbon dioxide which could be of a serious consequence in the unconscious patient.

They were able to maintain an average oxygen concentration of 50 per cent with an oxygen flow of 4 liters per minute, a concentration of 60 per cent with 6 liters, 75 per cent with 8 liters and 80 per cent with 10 liters per minute.

In a recent communication with the author I was informed that these plastic hoods were not on the market as yet.

M. L. B.

AGESEN, WALTER J.: *Bilateral Eighth Nerve Paralysis Following Appendectomy Under Avertin Gas-Oxygen-Ether Anesthesia. Report of a Case.* Ann. Otol., Rhinol. & Laryngol. 53: 339 (June) 1944.

"This is a case report of a twelve-year-old girl who developed a bilateral eighth nerve paralysis following an appendectomy in which avertin and nitrous oxide-oxygen-ether were used as the anesthetic. A recent search of the literature has failed to disclose a case of similar nature. No specific cause is offered for this neurological accident. Correspondence from the manufacturers of avertin states that they can find no published descriptions of a similar accident in which

avertin was used as the basal anesthetic agent. . . .

"It is . . . well known that cerebral complications following surgical procedures in which nitrous oxide-oxygen-ether was used may result in cerebral anoxia and be followed by cerebral complications. A few of the reported complications are amaurosis, difficult speech, residual athetosis, emotional imbalance, hemiparesis, aphasia and apraxia. . . .

"As the case came under observation five months following the operative procedure, only the history and findings as described on the initial clinical record and those elicited from the mother, along with the findings at the present time, are offered. . . .

"This twelve-year-old, Irish-American girl weighed 35.5 Kg. at the time of her hospital admission. According to the mother, she developed rather sudden pain in her abdomen on May 10, 1943, while the mother was at work. On the mother's return a pediatrician was called and a diagnosis of acute appendicitis was made. The child was sent to the hospital. There was no history of nausea, vomiting, constipation or diarrhea. The child had a temperature of 100° F. and had a white blood count of 12,000 on admission; no differential count was made. The surgeon noted that the abdomen was spastic.

"Operation was deferred until the following morning, at which time the white blood count had risen to 19,000. At preoperative medication the child was given seconal gr. .75 at 5:30 A.M., and at 7:15 A.M. she was given morphine sulfate gr. $\frac{1}{12}$ and hyoscine hydrobromide gr. $\frac{1}{300}$. At 7:50 A.M. she was given a 30 mg. per kilo basal dose of avertin over a twenty-minute period. Operation was begun at 8:15 A.M. and finished at 8:40 A.M.

"The following notes are taken from the anesthetic record: no excitement;

no vomiting; respirations, quiet; color, flushed; pulse, good quality; relaxation, good; complications, none; mucus, none; shock, none; condition after operation, satisfactory.

"The blood pressure ranged from 105 to 115 systolic during the thirty minute operative period. Respirations were from twenty to thirty per minute. There was an apparently normal return to consciousness and at 3:30 that afternoon the child was given morphine sulfate gr. $\frac{1}{12}$ for restlessness. The inability to hear was charted in the nurse's notes two days following the operation. The child's temperature dropped to normal the day following operation and from 99° F. on the following day it gradually returned to normal. She left the hospital on May 22, 1943.

"Extracts from the surgeon's report are that on entering the abdomen the peritoneum was dusky colored, the cecum was dusky and somewhat cyanotic, as was the appendix and one inch of the ascending colon. The small bowel and the ileum were of normal color. There were no bands or adhesions. The surgeon states that he was unable to account for the color of the cecum and the appendix and also for the patient's high white count. There was no mention of any blood pressure fall following the operation, nor of any resuscitation being necessary. The pathological report revealed catarrhal appendicitis.

"The mother's story, as elicited on October 9, 1943, was as stated, with the additional fact that on returning from the hospital the child was dizzy to the point of falling if someone did not support her. This symptom slowly disappeared after a period of two weeks. She further stated that the child's teachers, relatives and playmates knew that her hearing was good prior to operation. The child recalled that her mother came to see her the

evening of the operation and that she could not hear her mother speak. The child further stated that for some days following the operation she had pain in both ears, the type of which she was unable to describe, and that there was also noise in both ears similar to a steam radiator.

"Findings of the physical examination were irrelevant except for those relative to the eighth nerves. Both membrana tympani were intact. They were normal in appearance and the canals were clean. Using the c¹ (256 d.v.) and the c³ (1024 d.v.) tuning forks, the Weber test was referred to the left. The Rinne test was negative on the right side and positive on the left with both forks. Bone conduction was reduced twenty seconds with the c¹ (236 d.v.) fork and 28 seconds with the c³ (1024 d.v.) fork on the left. The right side was reduced 14 seconds with the c¹ (256 d.v.) fork and 10 seconds for the c³ (1024 d.v.) fork. There was no spontaneous or positional nystagmus. Caloric function tests with 30 cc. of water at 42° F. failed to induce a response in either ear. Twenty turns in ten seconds in the Barany chair likewise failed to induce a response in the canal of either ear. . . .

"A consultation report from the Neurosurgical Section revealed no abnormality except for the eighth nerve involvement. A patch test with avertin by the Allergy Section was negative. X-ray films of the skull petrous bones and sinuses were normal. The blood Wassermann was negative, as was the urinalysis. It is apparent from the audiograms that the auditory acuity has remained almost stationary with the exception of increased bone perception in the left ear. . . ." 3 references.

Comment: Audiogram 22 months following the accident showed bone and air conduction in the left side to have improved 10 decibels for the fol-

lowing frequencies: 512-1024-2048. All other frequencies remained the same. This slight increase gave the child a hearing for the spoken voice on the left side of 24 inches. The right side still had a total loss of serviceable hearing.

F. A. S.

ANONYMOUS: *Anaesthetic Convulsions and Epilepsy*. *Lancet* 2: 444-445 (Sept. 30) 1944.

"Epilepsy may develop in patients with head injury, neurosyphilis or infantile hemiplegia, who also have a family history of the disease; and . . . [Brain] suggested that in these cases the acquired lesion precipitated the convulsions by activating an inherited predisposition. . . . The electro-encephalograph has enabled us to detect predisposition, and so has made it possible to distinguish constitutional from accidental factors when both are present. . . . To regard an inborn epileptic tendency as the primary cause of anaesthetic convulsions may be to simplify our ideas too much. The in-born tendency is already there, but the anaesthetic is no less essential; and possibly even the two together would not have induced convulsions if the blood-sugar had not fallen from pre-operative starvation. . . . To oversimplify the problem tends to disguise the fact that the complex aetiology matters in prevention and treatment. We must be careful that the remarkable achievements of electro-encephalography do not blind us to that vision of the patient as a whole which we inherit from the great clinicians."

J. C. M. C.

ASRATYAN, E. A.: *A New Method for the Treatment of Traumatic Shock*. *Am. Rev. Soviet Med.* 2: 37-43 (Oct.) 1944.

"The present communication is based on a series of experiments under-

taken to investigate the shock syndrome. The experiments were directed along the following lines: 1) functional restoration of uncoordinated and asthenic nerve centers; 2) restitution of altered hemodynamics (atonic arterioles, diminished blood volume, hypotension), of disturbed capillary permeability and blood chemistry (oligemia, hypercalcemia, anoxemia, and acidosis); and 3) the neutralization and elimination of toxic histolysed, bacterial, and metabolic substances. To accomplish the first objective, that of restoring asthenic nerve centers, it was decided to follow the observations of Pavlov and to emphasize increased physiologic rest, by inducing sleep. . . . The literature contains many reports on the effective use of alcohol, opiates, bromides, and other sedatives in the treatment of shock. Their efficacy has been attributed both to their analgesic and hypnotic action. They have been found more satisfactory than total anesthesia or hypnosis by the use of chloroform, ether, barbiturates, soporifics, chloralose, or magnesium sulfate, which did not produce uniformly good results in the prophylaxis and therapy of traumatic shock. These drugs have, therefore, fallen into disuse despite positive clinical evidence in some cases. . . . It is obvious then that a more suitable drug must be sought for the treatment of acute shock. . . .

"Toward this end, hypnotics, bromides, and ordinary Ringer's solution were compounded in various concentrations and administered in varying doses. This anti-shock solution is made from crystalline substances, adjusted for synergistic action. At present the mixture of NaCl, 14 grams; CaCl₂, 2.5 grams; NaHCO₃, 1 gram; NaBr 1.2 grams; glucose, 20-24 grams; a hypnotic in an amount depending upon the type used: 40-45 cc. of distilled alcohol; and 1,000 cc. of dis-