It thus seems that the will may be excited to this controlling activity by many different processes. As minds differ, so results may be produced by different methods. What succeeds with one may entirely fail with another, and the reverse.

While I am inclined to believe that there is no mind that can not be aroused by some process, there is a wonderful difference in the facility by which this may be done. Investigators have not yet been able to give a basis of classification or any guide by which susceptibility may be determined, except by individual experience. Everything being equal, however, the higher in the scale of intelligence the more easily can concentration and the action of the will be aroused. On the other hand, the opposing action is the will itself, especially in the egotist who knows it all, and knows that he knows it.

We are all constantly using suggestion in some form in every phase of every-day life. Indirect suggestion is the common rule, but when we understand what we are doing, and desire to use suggestion, it seems to me that it is in every way much more satisfactory to use the direct method. The power of self-control can, by direct suggestion, be developed and the mind built up to a condition of strength, power and self-reliance that is impossible by any other means.

To quote again from the same article of Professor James:

Suggestion, especially under hypnosis, is now universally recognized as a means, especially successful in certain persons, of concentrating consciousness, and in others of influencing their body states. It throws into gear energies of imagination, of will, and of mental influence over physiological processes that usually lie dormant. . . . It is, in short, dynamogenic.

That is, I take it, that one is capable under certain conditions of controlling, through some zone of intelligence, the activity of the primary tissue cells.

222 West Colfax Avenue.

Clinical Notes

DEATH FROM HEMORRHAGE INTO THE SUPRARENAL BODIES IN A BOY OF EIGHTEEN*

LUDVIG HEKTOEN, M.D.
CHICAGO

The interesting and instructive case of hemorrhage into the suprarenals here reported occurred under the care of Dr. Byron Meacher, Portage, Wisconsin, to whom I am indebted for the specimen shown; namely, the right suprarenal body and the right kidney.

History.—Dr. Meacher's history of the case follows: The patient, a boy, aged 18, came to the hospital Jan. 26, 1909, for operation for a left inguinal hernia. The examination before the operation indicated that the patient was in perfect general health. The urine was normal; there was no history of any previous illness of any importance whatsoever except that four years ago he suffered from an infection of the left leg, recovery from which was complete. No record of tuberculosis could be obtained. Operation, January 27, under ether anesthesia, was uneventful. On the first day after the operation the pulse ranged from 100 to 140; it was normal on the second day, but from the third day, January 30, until February 10 it ranged from 100 to 140; after February 10 it was normal in rate but irregular until death, February 15. The pulse was feeble all this time. The temperature was normal until the third day after the operation, when it gradually rose to 102 F., where it remained for two days, gradually going down to normal during the next five days. The day before

death the temperature was subnormal. The urine at no time showed anything abnormal. Immediately after the operation the patient complained of pain a little to the left of the median line under the costal margin and later of the same kind of a pain under the right costal margin. This pain persisted with some tenderness until death. On the fifth day the liver reached three fingers below the costal margin and was then quite tender, but on the ninth day it seemed to have returned to its normal size, the tenderness, however, persisted. Some food was taken every day and there were no disturbances of the bowels, but the patient vomited at different times after the fifth day, gradually losing weight. The wound healed by primary intention. On February 9 the mind seemed somewhat clouded and gradually became more so until death occurred, February 15.

Postmortem.—There was no abnormal discoloration of the skin. The wound in the left inguinal region was healed throughout. There was some emaciation. The heart, lungs, liver, intestines and urinary bladder were normal in appearance. The spleen seemed considerably enlarged. The kidneys also were normal. Both suprarenal bodies were much larger than normal, firmly adherent to the surrounding structures, and densely and uniformly infiltrated with blood so that their appearance was like that of a hemorrhagic infarct. The right suprarenal and the right kidney were submitted to me for further examination. The kidney is quite normal in size and appearance, the capsule free; the right suprarenal body is situated in the usual place at the upper pole of the kidney. It is much enlarged, being 5 cm. in width, 5.5 cm. in height and about 2 cm. in thickness, and so uniformly infiltrated with firmly clotted blood that only a very thin shell of the cortex is recognizable here and there. In places there is some infiltration of blood into the tissues about the suprarenal, but the main hemorrhage is wholly within this organ. On the cut surface it is quite smooth and red. The hemorrhagic infiltration is most intense in the medullary part and appears to be of about the same age everywhere, and microscopically the tissue is uniformly necrotic, no nuclei being demonstrable in the adrenal cells; some of the vessels in the central part are plugged with clots and the mouth of the suprarenal vein is closed by a firm, adherent and yellow thrombus which projects into the vena cava as a small smooth oblong body about 1 cm. in the longest dimension. A short and incomplete segment only of the vena cava accompanies the specimen so that nothing can be said of the condition in other vessels.

In the newborn and in infants and children, hemorrhage into the suprarenal bodies is relatively not uncommon. Recently it has been dealt with quite exhaustively by Arnaud,¹ Hamill² Dudgean,³ and Litzenberg and White.⁴ The literature also contains reports of instances of more or less extensive hemorrhage into the suprarenal bodies in adults, and in some the clinical and anatomical details are not much different from those in the present case. This is especially true of cases described by Mattei,⁵ Arnaud, Pritchard,⁶ Laignel-Lavastine,⁷ Simmonds,⁸ Munson,⁹ Lissauer,¹⁰ and Lavenson.¹¹ Lavenson gives an excellent and exhaustive

1. Les hemorrhagies des capsules Surrénales. Arch de méd., 1900, new series, iv, 5.

2. Hemorrhages into the suprarenal capsule in still-born children and infants. Report of case showing rupture of the sac and escape of blood into the perirenal tissues and the peritoneal cavity. Arch. Pediat., N. Y., 1901, xviii, 81; also Tr. Am. Pediat. Soc., N. Y., 1900, xli, 176.

3. The etiology, pathology and diagnosis of adrenal hemorrhages. Am. Jour. Med. Sc., 1904, cxxvii, 134.

4. Hemorrhage of the adrenals in infants with report of two cases due to infection, THE JOURNAL A. M. A., 1908, li, 1964.

5. Ricerche sull'anatomia normale e patologica della capsula supra renali e considerazione sull'apoplessia di questi organi e sulla malattia dell'Addison. Sperimentale, 1863, xi, 3.

6. A case of hemorrhage into the suprarenal capsule of both sides. Lancet, 1890, i, 750.

7. Hemorrhagie des glandes surrénales. Bull et mém. Soc. anat. de Paris, 1901, lvii, 683.

8. Ueber Nebennierenblutungen. Virchow's Arch. f. Path. Anat., 1902, clxx, 242.

9. Suprarenal hemorrhage, an unusual cause of sudden death, THE JOURNAL A. M. A., 1907, xlix, 19.

10. Zur Kenntnis der Nebennierenblutungen. Virchow's Arch. f. Path. Anat., 1908, cxliii, 137.

11. Acute Insufficiency of the Suprarenals. Arch. Int. Med., 1908, li, 62.

* Read before the Chicago Pathological Society, March 8, 1909.

résumé. In some of the cases there is uncertainty as to whether the primary condition was hemorrhage or thrombosis of the principal veins, followed by hemorrhagic infarction. Lissauer believes that in cases studied by him the primary condition was thrombosis, and it seems to me not unlikely that such was the case in the present instance also. Suprarenal hemorrhage does not seem to have been diagnosed during life as yet, and, while there can be no doubt that bilateral suprarenal hemorrhage or hemorrhagic infarction, as in this case, may cause death after distinctive clinical disturbances, the observations so far recorded probably are not sufficient for the reconstruction of complete clinical picture or pictures, although Arnaud concludes his study of a large number of cases of all kinds of suprarenal hemorrhage by dividing them on the basis of symptomatology into three distinct clinical types, viz.: the asthenic type (suprarenal insufficiency), the peritoneal type (peritoneal irritation), and the nervous type. Lavenson adds two more groups; namely, cases of sudden death and cases, so far observed only in children, with purpuric eruptions or hemorrhages in the abdominal viscera.

PROCTOCLYSIS

A SIMPLE METHOD OF ADMINISTERING THE MURPHY TREATMENT

M. IVERSEN, M.D.
STOUGHTON, WIS.

While there are many devices and arrangements for administering the "Murphy treatment"—proctoclysis—most of them are either costly, clumsy or both. The method I have adopted, and which the accompanying illustration makes self-explanatory, has proved satisfactory. It has the added virtue of being easily carried out with material at hand in any hospital.

The parts consist of a fountain syringe or irrigator (A), a stopcock (B), a Y-shaped glass tube (C). From the latter a long rubber tube, ending in a hard rubber or glass tip, extends downward and another piece of tubing extends upward, ending in a U-shaped glass tube (D), the open end of which projects into the irrigator. I have found an 8-candle-power incandescent electric drop light (E) all that is necessary to maintain the temperature of the saline solution.

The stopcock is set so as to permit a flow of from 50 to 80 drops a minute. The vent tube leading from C to D permits the back flow of liquid or the passage of gas when the patient strains. The container should be from 4 to 14 inches above the level of the buttocks.

Therapeutics

PREVENTION OF TUBERCULOSIS

Dr. Noble P. Barnes, Washington, D. C., presented a paper at the International Congress on Tuberculosis (*Interstate Medical Journal*, January, 1909), which states so well the every-day methods of preventing this disease that it is time well spent to review them.

As unhealthy mucous membranes are probably generally the point of entrance into the system of the tubercle bacillus, Barnes emphasizes the necessity for keeping mucous membranes clean and healthy and with free drainage. He emphasizes the necessity for the complete and prompt removal of adenoid vegetations and enlarged tonsils in young children, and believes that the frequently performed tonsillotomy, while removing obstruction, leaves partially concealed or submerged diseased tonsillar tissue that not only harbors various organisms, but offers an open door for the tubercle bacillus. If it is decided that a tonsil is diseased a complete tonsillectomy should be done. Also, partial removal of adenoids does not relieve the congested turbinates, and proper nasal breathing and nasal mucosa drainage can not be established until the nasopharynx is cleared.

The nose itself should be made as free of bony obstructions and mucous membrane hypertrophies as deemed necessary for the free passage of air. If the mucosa is thickened, the use of mild alkaline antiseptic solutions followed by mentholated pure petroleum oil will aid in causing it to become healthy. In simple catarrhal conditions of the larynx and upper bronchial tubes, the inhalation of some mild aromatic antiseptic oil solution is of value.

Barnes believes that the rising toilet of all individuals who possess sensitive mucous membranes, and of those who inhale city dust, should include the employment of a non-irritating nasal douche, and a cold water gargle. "A free change of air in the lungs is next in order, the method depending on the physical condition, and lastly inhalation for from five to ten minutes of mentholated aromatic oils."

From such a morning toilet of the nose and throat, mucus that may have collected during the night is washed off and expelled, the appetite for breakfast is improved, and the mucous membrane is prepared to counteract the ill effect of the dust and bacteria that must of necessity be inhaled during the day.

If the mucous membrane of the nose and throat is unhealthy, Barnes suggests, besides small doses of iron, small doses of iodid. This is certainly good treatment, provided the dose of iodid is very small, perhaps not more than 0.03 to 0.05 gram (or $\frac{1}{2}$ to 1 grain) three times a day.

If a tuberculous process is going on in the lung, Barnes advises against respiratory exercises as tending to prevent the normal healing of the part. This is certainly good advice, as either the exercise is often carelessly ordered by the physician, or the patient or the patient's family, through the reading of popular articles, begins deep breathing at a time when it is positively contraindicated. Later, when a lung has thoroughly healed, graduated respiratory exercises are advantageous. Barnes suggests the following precautions in lung gymnastics, viz.: never expand the chest beyond the degree of comfort for fear of tearing open old wounds or rupturing air cells. 2. The air should be expelled through the nose instead of through the mouth or puckered lips as taught by most teachers of physical culture, because the turbinates are cooled by inhalation, and warmed by exhalation, and the dust caught on the nasal hair and mucous membrane will be forced out instead of being drawn further in."

The mucous membrane of the digestive tract becomes second in importance as a route of tuberculous invasion