A variety of other agents has been used, especially $HgCl_2$, 1-1000 to 1-2000; but I think the best results have been obtained by the use of carbolic acid.

In the treatment of laryngeal affections I do not think that saturated vapor offers any advantages over the common spray or steam atomizer. The quantity of medicine deposited in the larynx is probably not so large as it would be with the spray or steam atomizer; but I think that theoretical considerations and practical results justify the conclusion that for the deep portions of the respiratory tract it is greatly superior to these or any other method with which I am acquainted.

With the combined effect of pneumatic treatment and saturated vapors, I have seen expectoration diminish and the pathogenic organisms of phthisis grow less and disappear. I do not mean to say that this has been the rule; for with this or any other treatment at present known the arrest of advanced phthisis must be the exception, and a fatal termination the rule. But I think that a method of treatment which appeals so strongly to our judgment through our knowledge of physical laws, is at least entitled to careful and thoughtful consideration.

In many cases of intractable bronchitis the results have been so signal as to remove all doubts, in my own mind, regarding the superiority of this method. These patients have been treated almost to the exclusion of the whole list of nauseant expectorants; the principle effect of which, in my opinion, is to disturb digestion and destroy appetite. There is an *a priori* absurdity in mixing a teaspoonful of an expectorant mixture with some fifteen or twenty pounds of blood, as is done after absorption, and then expect a tangible result upon an extensive inflammatory process involving almost the entire bronchial lining. The dose, when it reaches the lungs through the laboratory of the portal circulation, has reached so many "dilutions" that it ought to satisfy the views of Hahnemann's most ardent disciples. While very far from denying internal medication a legitimate place in the therapeutics of pulmonary disease, yet I would make it as subordinate as it is acknowledged to be in the treatment of other inflammations as accessibly located as these. When dealing with a cystitis or pharyngitis, or even a gastritis, we do not rely upon the introduction of medicinal agents into the circulation, from thence to reach the seat of morbid action by a circuitous route, and in infinitesimal dilution. But we apply our remedial agents to the diseased focus by means of the catheter, the gargle or probang, and the siphon tube or stomach pump. Constitutional measures are not neglected, but they are not relied upon as the principal method of treatment.

The future, nay I believe the present therapeutics of certain pulmonary diseases must rest upon this basis of local therapeutics, backed up by such constitutional measures as will improve nutritive processes in general, and consequently those of the lungs in particular.

Ft. Wayne, Ind.

CEREBRAL SOFTENING; WITH REPORT OF A CASE.

BY C. N. BLOUNT, M.D.,
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Daniel N., aged 52, carpenter, twenty-five years before his last sickness was suddenly attacked with a severe convulsion. There were no premonitory symptoms, excepting that for a little while before he stammered in attempting to talk. He had about twenty convulsions in all. The paroxysms were very severe, occurring sometimes once or twice a day, and then a day or two would intervene before their return, and thus continuing until they entirely ceased in a short time. There was no tendency to a return of the convulsions until his last sickness. There was no paralysis except aphasia for a short time. He was an invalid, however, for about a year, when he was sufficiently restored to resume his trade, which he continued during the intervening years till his last sickness. He did not seem in any way different from his former self excepting a loss of memory. His wife thinks that his memory was more defective in every way than before the attack, but especially in remembering where he had placed anything he had been using.

There was a small tumor on the back of his head, which gradually grew during these years to a diameter of three inches. He occasionally complained of severe pain in it. It was there long before the above-mentioned attack.

In April, 1885, the tumor was removed by the knife. After the operation he continued at work until October, when he was compelled to give up. His wife thinks, however, that he was never well after the operation. He was peevish, fault-finding and very irritable, becoming very angry at little things. He now frequently complained of headache, which daily increased. He would sometimes say that the old pain was in the back of his head, and would think that the tumor was returning. For a month or more before he took to his bed, he was very much indisposed. He acted strangely, slept badly, was feverish at night, complained of numbness of limbs, was costive. There was no nausea, and his appetite was good all the time. He persisted in being at work up to October, 1885, when he had to take his bed.

He occasionally had slight convulsions during October, November and December. Sometimes during the summer he would forget words, but this was now much more noticeable. Most of the time during his sickness he had hemiopia; a few times he had diplopia. He spoke of this last trouble only on two or three occasions, but the hemiopia was rather persistent. There was a gradual failure of both physical and mental forces until he was a complete physical wreck and demented, taking no interest in anything. During the latter part of his sickness there was partial paralysis of the right side, more marked in leg than arm. There was also paralysis of the tongue and muscles of the pharynx. This was very distressing during the last two months of sickness. He could scarcely speak or swallow. He became very much emaciated, and died in April, 1885, about one year after the removal of the tumor.

Dr. Buntin and I made an autopsy in the presence of Drs. Moore and H. C. Boyd. On removing the calvaria the brain appeared a little flattened, the cortical vessels were much enlarged, giving the surface a pinkish color. Having loosened the brain and lifted it from its bed, on inspection it did not seem to be extensively diseased. The cortical portion of the posterior lobe seemed thinner and much paler than that of the other lobes. On separating the hemispheres we found the entire covering a thin shell not more than one-fourth inch in thickness. The brain tissue of each hemisphere was softened to about the consistency of custard, and was of a grayish-white appearance. There was not any healthy brain tissue in either of the hemispheres, but the entire cerebral substance was softened and broken down. The cerebellum was healthy, save that at a few points it seemed to be softening.

Edes, in Pepper's "System," says: "A general softening of the whole brain does not and cannot occur, since a vascular lesion sufficient to cause anæmic necrosis of the whole brain must cause death before softening would have time to take place." Here was a case in which the blood supply was cut off from both cerebral hemispheres and softening did take place throughout the entire cerebral portion of the brain, and the man lived seven or eight months, or perhaps twenty-six years, while this process was going on. We did not in this investigation examine the vessels as we should have done, but we know that they were completely plugged, for there was not a remnant of a vessel in all this soft mass of matter. If Edes included in his statement the cerebellum, of course he must be correct; but if he means the cerebrum alone he is mistaken, as demonstrated by this case. The left side of the brain is the one usually softened, because the vessels of that side are more readily entered by an embolus. The middle and anterior cerebral vessels are branches from the internal carotid, the posterior cerebral from the vertebrals. They are united by communicating vessels at the base of the brain, forming the circle of Willis. They make such a perfect anastomosis that if either trunk were obstructed by an embolus, thrombus, or any other cause, before the communicating branch is given off, the brain would still be nourished by means of this very wise anatomical arrangement. If, however, the obstruction should occur beyond the communicating branches in either vessel, that part of the brain receiving its nourishment therefrom must become anæmic and die, because these vessels do not anastomose as vessels in other parts of the body, and hence a collateral circulation cannot be established to nourish the portion of the brain thus deprived of its blood supply. If paralysis exists it is usually on the right side—the left brain being more frequently softened. The topography of the brain is so well understood that an expert can almost always locate the part of the brain deprived of its blood supply—but he cannot so readily differentiate the particular form of the trouble or character of the lesion producing the symptoms in a given case. My observation of such cases has been too limited for my opinion to be of much value. I saw the case reported about three months before death. Having the history given as above detailed, and reasoning from it, I was inclined to think that there was a tumor that had existed for a long time, and that it had produced the former symptoms, and that from some cause, it had not been growing until, on the removal of the external tumor, it took on new action and produced all the symptoms present. If that was not the condition, then I thought that beyond doubt there was much softening—which was found.

Da Costa says that there are no pathognomonic symptoms the presence of which would enable us to declare, without hesitation, that we are dealing with a case of softening of the brain, or the absence of which would justify us in concluding that it does not exist. Nothnagel says the diagnosis of hæmorrhage, embolism or thrombus cannot, in any given case, be unreservedly made.

MEDICAL PROGRESS.

TREATMENT OF BURNS AND SCALDS.—PROFESSOR MOSETIG, during the last five years, has treated with iodoform forty-eight severe cases of burns and scalds with the most satisfactory results. The danger of iodoform-intoxication in burns, he believes, is merely theoretical, as neither he nor others who treated burns with iodoform had, when using certain precautions, ever met with bad concomitant effects. The action of iodoform is twofold—it is both analgesic and antiseptic. The patients, according to Dr. Mundy's experience, which Prof. Mosetig fully confirms, obtain ease a few minutes after the application of iodoform to their burns, and are soon fit to be moved. The patients, in Prof. Mosetig's wards, repose quietly and without pain in their beds; they recover more rapidly, with only moderate and consequently less exhausting discharges, and with smoother cicatrices, than those differently treated; and if there is no possibility of saving the life, euthanasia at least is procured. Iodoform, although inert against the dangers to life from oligocythæmia and the nervous shock, guards against the danger of sepsis.

Prof. Mosetig, differing from the majority of surgeons, uses iodoform in very limited quantities only. He either does not employ the powder at all, or when so in rare instances; he sprinkles it by means of an insufflator in very thin layers, only on those places where the integument has been burnt in its whole thickness, and has assumed a parchment-like appearance. As a rule he covers the injured parts directly with compresses of iodoform gauze, not prepared in the usual way, by thickly dusting the gauze with the powder, but by impregnating with an etheric solution of iodoform the purified gauze, which has previously been freed of grease. He proceeds in the following manner: After opening and excising the vesicles, and cleaning the burns with cotton-wool, which had been steeped in a ½ per cent. solution of table salt, and well pressed out, he covers the wounds with dry compresses consisting of several layers of iodoform gauze, prepared as stated above, of corresponding