

to bones is apt to be a source of great injury to a patient; but I recommend it with confidence, and am satisfied to rest the justification of its claims to value upon the statistic of results in future operations. But the after-treatment must be the same as practised in these cases.

ART. VII.—*Some Account of Diphtheria as it occurred at Oakland College (Miss.), and Vicinity.* By R. H. GOLDSMITH, M. D.

THE latitude of this locality is about 32° N. The country is hilly, and its altitude from fifty to seventy-five feet above the Mississippi River. The soil is clayey, and except in the bottoms, poor. The woods are gradually disappearing, but in the bottoms the undergrowth is rank and luxuriant, with many willows, dogwood, cane thickets, &c. The soil being clayey, retains much moisture: and, although not marshy, is constantly in a saturated condition. In summer, when the thermometer attains an average range of 90° , the most noisome malaria is generated in these bottoms, and is carried over the hills by every wind. This heat continues for three full months, with a fall of the thermometer of 10° to 15° every night, during August and September. As a consequence, during these months the dews are heavy, and the putrefaction of decaying vegetable matter rapid and abundant.

The summer of 1859 was a season of malarial fevers, severe in form, with a typhoid tendency, and extremely difficult to treat. We had a singularly dry summer, although the river had overflowed the flat lands along its whole extent. The winter following presented a series of atmospheric changes, such as the South has never before known; thermometrical records exhibited the highest and lowest temperatures ever recorded in the State. An abundant snow, with the thermometer below zero, were the precursors of the most virulent and malignant diphtherial epidemic ever seen in *any locality*.

Diphtheria has been endemic in this vicinity for three years, and epidemic since January, 1860. It has varied in severity, from the slightest deposition of exudatory membrane, to the complete plugging of the larynx and trachea; yea, I may add, with the deposition of diphtherial membrane from *fauces to anus*. I propose to give the history of a few cases, from a record of three hundred which have occurred in my practice alone. On a single plantation, in January, I count one hundred and twenty cases, and, from this place, I select, at random, cases demonstrative of different shades of the disease.

CASE I. Called on Jan. 2, 1860, to visit Lizzie, a black woman, aged 25, in the following condition: Voice thick and husky, complains of inability

to swallow; eyes red, and capillaries filled almost to bursting; pulse 120; skin dry and harsh, with a most pungent heat. High fever; bowels constipated. On examining throat, I found it covered with an ash-coloured, gangrenous-looking deposit, so thick as to impede respiration, the air passing through, causing a sound like that of a child's whistle. This, I take it, is the ordinary form of diphtheria, allowed to run on to this stage without treatment.

Treatment.—I immediately swabbed her throat with a solution of nitrate of silver (gr. xx to the ounce of water). For this purpose, I use a large and also a very small size probang. The large probang has a sponge, ball-shaped, one inch in diameter, and will take up a tablespoonful of the solution. The small probang I use for washing the œsophagus and larynx, when the deposit reaches these localities. Here, let me remark that, in all my cases, I have never had occasion to regret immediate application of the caustic; on the contrary, the only case that I lost on this place, died because I had no proper instrument with which to make a thorough application of the caustic. My plan has been (and experience confirms my method), to apply the caustic solution as soon as possible, regardless of the amount of deposit. The first application enables the patient to breathe by removing the deposition, and the application is to be reapplied, according to circumstances, the object being to prevent the re-forming of the false membrane. To resume, I also gave the following solution: R.—Saturated solution of chlorate of potash $\bar{\text{z}}$ xij; Tinct. sesquichloride of iron $\bar{\text{z}}$ ss; Syrup $\bar{\text{z}}$ ij. Mix. Take a tablespoonful every two or three hours. She is also to take a teaspoonful of brandy every hour, mixed with a little sweetened water. I have never yet seen a case in which the prompt administration of stimulants was not only beneficial, but *absolutely abortive* in their action on the disease. The fever and complications are of a typhoid character—the poison like that of typhus—and, consequently, the treatment should be tonic and stimulant. This woman was also allowed a liberal quantity of beef-tea during the day, with an opiate at night. This constituted the whole treatment, and convalescence was prompt.

CASE II. A boy named Branch, aged about 16, a stout, healthy negro. He presented that most alarming symptom, a picking at the bedclothes, constant desire to throw off bedclothes; a low, muttering delirium; he passes his feces involuntarily. Pulse 150, compressible, gaseous. Heart labouring violently to propel its blood. He has had ten or twelve dejections during the last twelve hours. They resemble the deposit on the throat, with the addition of blood. Tongue of a fiery red, with a black, dry crust in centre. Respiration reduced to a whistle, varying from 20 to 30 in the minute. Sordes about teeth; fauces covered with the diphtheritic deposit, as far down as I can see. I had no hope of this patient, but I went briskly to work. Washed out the throat *well* with small probang, touched the *rima glottidis*, and far down the œsophagus, and brought up a lump of the deposit as large as a hickory nut, which resembled cotton, painted gray. The boy breathed freer immediately, and, with some difficulty, swallowed. I gave the following: R.—Carb. ammonia $\bar{\text{z}}$ j; Æther sulphur. $\bar{\text{z}}$ iv; Tinct. zingib. $\bar{\text{z}}$ ij; Spts. vin. gall. $\bar{\text{z}}$ iv. Mix. Dose, a dessertspoonful in a little water, every half hour.

To check diarrhœa: R.—Plumb. acet. gr. x; Tinct. opii gtt. xx; Starch water $\bar{\text{z}}$ ij. Use at once, and repeat every two or three hours, *pro re nata*.

At 5 o'clock of this day (Jan. 6), the boy is more quiet; operations not so frequent. I reapplied solution of caustic, and gave the chlorate of potash mixture, as in Case I., and the following injection *per anum*: R.—Nitrate of silver gr. j; Laudanum gtt. xx; Starch water ʒij. Mix. Use at once, and repeat in three hours.

I continued a similar course for seven days, adding various tonics as the indications demanded, and giving brandy as freely as the boy could take it. He made a perfect recovery.

CASE III. A little negro boy aged 7 years. I found him with eyes red as fire, spitting mouthfuls of blood; prostrate. I washed his mouth with water, to examine throat, &c., and, to my astonishment, beheld blood oozing from gums, tongue, and whole interior of throat. During his attack he lost, at least, a pint. He had profuse diarrhoea. I may here remark that the worst cases are those accompanied with diarrhoea, as it soon exhausts the patient, and is difficult to check. I pursued my usual plan, using nitrate of silver, brandy, beef-tea, &c.; subcarb. bismuth and morphia to check bowels. This child recovered.

CASE IV. I mention because of a most untoward complication, namely, paralysis of muscles of neck, &c. All symptoms of the disease were checked, deposit had disappeared, and I regarded the little patient (a child aged 8 months), as convalescent. Suddenly the paralysis occurred, and all known remedies were exhausted, without avail. It died.

CASE V. The last case I will mention is that of a mulatto boy, aged about 14. He had all the worst symptoms from the time he was taken sick; was delirious; the secretions from throat at each expiration, were forced through the nose. I had no probang with me, but made a rude one, and applied caustic solution as thoroughly as the instrument permitted. In about eight hours used the proper instrument, with much relief to patient, but he was suffocated by covering his head with the bed-clothes, a practice which our negroes have in sickness and health. I sustained him for days before he died, with stimulants by mouth and bowels, and think he too might have been saved, but for the accident.

Remarks.—I believe that this disease is produced by some specific poison, being similar to a disease in cattle, the black tongue. This cattle disease—black tongue—prevailed among the stock of our neighbourhood, whilst diphtheria was raging, black tongue preceding diphtheria. It is certainly a remarkable coincidence that the country adjacent to the plantation on which the black tongue prevailed, was most affected with diphtheria.

On the same plantation, every possible shade of the disease occurred, together with diseases which I regard as cousin-germain, namely, typhoid pneumonia, typhoid fever, and two cases of pure typhus. This plantation is well managed, the houses new, the negroes well clothed, well fed, and yet the whole number of servants—one hundred and fifty—were attacked. They were taken sick just after the Christmas holidays, and after the unusual luxuries consequent on that festival. Among other things, *beef* formed one of the principal staples of their feasts, and this, again, is a striking coincidence, as I took the trouble to ascertain who were the beef eaters, and found they were my first patients.

I regard the disease as *in the highest degree* contagious. Many experiments were made with the view of ascertaining this fact. When an isolated case would occur, I shut the patient in a room with the other sick, and removed all others from the sick quarter. All communication, as far as possible, was prevented between the sick and well, and yet not a single person escaped. Servants from other plantations came to this one, and carried the disease to their homes. I shut them up, in their turn, cut them off from all communication with their fellows, and succeeded in keeping the disease to a single house, when far away from the "Black Tongue" district.

If recognized early, this disease is perfectly amenable to treatment. Since the epidemic, the author has treated two hundred and seventy-five cases, and, of these, but five died, three of which might have been saved if they had been seen early. There are two diagnostic symptoms by which this disease can be surely known, namely, a fiery eye, and a blue, congested appearance of upper lip; the latter symptom is especially apparent among children. A view of throat is, of course, positive.

Treatment must be prompt, immediate, and untiring. Thorough application of a solution of nitrate of silver, of proper strength, at all stages of the disease, and as much brandy as the patient can digest. The chlorate of potash and muriated tincture of iron are also highly useful; the latter, especially, stands high in my estimation, forming as it does almost a specific in an analogous disease, erysipelas. Depressing remedies are worse than useless, nay, accelerate death. Blisters, and all outward applications, are highly injurious; the only one used in this epidemic, a strong solution of iodine, I am not entirely satisfied with, as it sometimes produced frightful ulcerations. If the patient cannot swallow, the following enema may prove beneficial: Port wine ʒj; quinine gr. v to x; beef-tea ʒij—to be used milk-warm every two or three hours. We are never permitted to despair in this disease; the simple passage of the probang has saved patients who seemed in articulo mortis, and free stimulation perfected the cure. There are many other remedies recommended, and may be tried; the simple course laid down above, has answered for the epidemic seen by the author.

OAKLAND COLLEGE, Miss.

ART. VIII.—*Case of Transverse Fracture of the Patella, successfully treated by means of Malgaigne's Hooks.* By JOHN H. PACKARD, M.D., of Philadelphia.

ON the 28th of November, 1860, I was requested by a friend engaged in an exclusively medical practice to take charge of a lady who had that morning sustained a fracture of the left patella. She had, in going down