ART. XIII.—*On Acute Farcy Glanders*. By S. BROWNE, R.N.,
M. R. C. S. E. ; Surgeon to the Belfast General Hospital
and Ophthalmic Institution.

IT is my melancholy duty to lay before the readers of the Dublin Quarterly Journal some notice of a case of the most fearful and fatal malady to which the human subject is liable, —dread hydrophobia itself not even excepted. Acute farcy glanders is the affection to which I allude. Before, however, entering upon the details of the case under consideration, I beg to offer a few remarks upon the nature of this formidable disease as it appears in the horse, the animal from which, so far as we know, the disease has originally sprung. Percival, in his admirable Hippopathology, defines “glanders to consist in a discharge, from one or both nostrils, of matter which by transfer or inoculation will produce the disease in another animal of the equine or human species, and which discharge is, sooner or later, accompanied by vascular injections and chancrous ulceration of the Schneiderian membrane, by tumefaction of the submaxillary lymphatic glands, and by *farcy*.” The same author defines farcy as follows:—“Farcy consists in the appearance upon such parts of the body as are known to give passage to the lymphatic vessels, of swellings, in the form of nodous cords,—*farcy buds*, which, in time, ripen into pustules, and terminate in ulceration.” Coleman, Percival, Leblanc, and many other veterinarians, have proved that glanders and farcy are identical:—“1st. From the reciprocity of production through inoculation. 2nd. Their traceableness to the same exciting causes. 3rd. Their termination one in the other, which almost invariably takes place, when suffered to run their natural course, previous to death. 4th. Their frequently simultaneous appearance in the same subject, together with the similitude of the phenomena and course they exhibit.” Leblanc considers that the lesion of glanders consists, “In a general alteration of the fluids of the body, in particular of the lymphatic fluid; this turns yellow, and becomes coagulated within the canals of the lymphatics, and the cavities of their glands, the tunics of the vessels thickening and turning opaque, exhibiting red points upon the inner surface, and adhering in places to the coagula within, and in other parts growing more or less softened, without, as yet, showing ulceration. In time, all the thickened parts of the vessel partake of this softening, spreading from a single point upon its circumference; the coagulum within softening likewise, and the areolar tissue corresponding to the point of ulceration becoming tumified, then hardening, and lastly softening; and now a little tumour

exists, having its seat in part in the lymphatic vessels, in part in the areolar tissue, observably close upon the situation of the lymphatic valves, which accounts for the accumulation of the lymphatic fluid in its incrassated or coagulated condition, not being able to pass the valves." And he is of opinion, that whether the appearance is found in the mucous membranes, skin, or respiratory passages, or in the lymphatics, it depends upon the same cause,—inflammation in the lymphatics, and change in the lymphatic fluid, such as has been described.

With regard to the producing or exciting cause, there has been difference of opinion among veterinary surgeons, but all admit that either glanders or farcy can be transmitted by inoculation, and it is generally believed among the medical profession, that in this way alone, by inoculation with either the matter of farcy or glanders, can the disease be produced in the human subject.

Rossi, however,—who made some very curious experiments, along with Savini, as noticed in the *Dublin Journal*^a; for the purpose of showing the cause of glanders,—states that he produced the disease in dogs by introducing into their stomachs the matter from the nostril of a glandered horse, and that these dogs communicated the disease by contact, or contagion, to other animals of the same species.

Copland, in his *Dictionary of Medicine*, defines acute glanders as exhibiting "vascular injection, and chancrous sores of the membrane of the nose, frontal sinus, and parts adjoining, with a profuse discharge, and pustular eruptions, or tubercular or gangrenous ulcers in various parts, preceded by constitutional disorder, attended by fever of a low, malignant character, and produced by contagion." He believes that acute glanders, and acute farcy glanders, are identical, and he states that, "acute simple glanders may proceed either from the matter of farcy, or from its own discharge, and that acute farcy glanders may arise from the contact of the matter from the nostrils in acute glanders." He might have added, or from the discharge in chronic glanders also.

The Profession is indebted to Dr. Elliotson for the first clear description of the disease of glanders as it appears in man; and Dr. Graves, in his *Clinical Medicine*^b, mentions the symptoms observed by him in a case of glanders, and one of farcy, and draws attention to the white ring or wheal which he saw surrounding the pustules in these cases. His first case was clearly one of acute glanders, arising from inoculation, the nose

^a First Series, vol. xv. p. 351.

^b Edition by Neligan, vol. ii. p. 332.

and respiratory passages being first attacked; the patient lived ten days from the appearance of the disease. His next case was one evidently of farcy, the disease having manifested itself in one of the lower limbs: this patient died after thirty-three days of suffering. With respect to the pustule with white edges, Mr. Colles, long before, described such as having been observed by him round the ulcers of subjects labouring under the effects of animal poisons.

Dr. Henry Graves, of Cookstown, has accurately described two cases of acute glanders, or farcy, which are recorded in this Journal^a. In his cases, the disease manifested itself within forty-eight hours after direct inoculation with the matter from a glandered horse. The first patient survived through ten days of intense suffering from fever, pains in all the joints, limbs, and back, with pustules and sloughing ulcers on the left side principally, which had been the one inoculated, and finally, before death, he had discharges from both nostrils and left eye, with an intolerably fetid odour. In his other patient the disease ran a more rapid course, the man dying on the eighth day of the disease—the ninth after inoculation. The acute farcy symptoms were in this case similar to those observed in the other, but the glander symptoms, namely, the discharge from the nostrils, were not present, though they doubtless would have been had the man survived a few days longer.

In the eighth volume of this Journal, at page 442, Mr. Kelly, of Mullingar, also gives an account of a case of acute glanders. In this case the man died on the eighteenth day after the disease manifested itself—or rather from the date when he became indisposed. This case I recommend to the notice of the profession, as it has many points of close resemblance to the one I am about to submit. I do not agree, however, with his idea of the manner of infection, as I believe there was direct inoculation, of which, indeed, Mr. Kelly himself gives pretty conclusive evidence; though he leans to the belief that the disease was produced by inhaling the breath of the glandered horse from which the affection came!

About three years ago I saw a case of acute farcy glanders in the Belfast General Hospital, under the care of my friend and colleague, Dr. Pirrie. In this case there was evidence of direct inoculation with glanderous matter from a diseased horse with which the man had been working. The patient was thirty-six years of age; he was first indisposed on the 6th of August; was seen by one of the district dispensary physi-

^a New Series, vol. vi. p. 469.

cians on the 16th; was admitted into the General Hospital on the 21st; and died on the 25th of the same month. Throughout he had many of the symptoms that marked the case I am about to relate: and however the various cases to which I have referred may have differed in some particulars, still they all had several general and similar features, and were alike fatal in their results.

I shall now briefly state the case of John Clarke, aged fifty-four years, who was admitted into one of my wards in the General Hospital, on the evening of the 24th of November, 1855, suffering from an abscess situated on the middle of the outer side of the right thigh. When I saw him, for the first time, on the morning of the 25th, he complained of general soreness over the body, but especially round the seat of the abscess, and about the middle of the left fore-arm. He seemed very depressed and greatly cut up, as I may express it; his tongue was foul; pulse 126, and feeble; bowels confined; and skin of a dusky jaundiced hue. On examination, I observed in the part of the thigh mentioned an oblong flattened swelling, without any morbid heat or discoloration, save at a small point in its centre, where there was a dark red pustule discharging a thin ichor, such as we see in an unhealthy phlegmon. On the left fore-arm a somewhat similar swelling, but without any pointing, was observed. On questioning him relative to his state of health for some time back, I found that about three weeks since he first felt indisposed, feeling weak and languid, without appetite, and troubled with frightful dreams; up to that time he had been well; he attributed his illness to cold caught from severe wettings, to which he had been lately exposed. On the 26th November I opened the abscess of thigh, and gave exit to about two ounces of very unhealthy pus. I learned that he had been delirious in the night, and had not slept. He complained of pains in all of his joints, and many other parts, especially of the neck and shoulders, with general *malaise*. I remarked at the time to the students in the ward, that his general aspect, the appearance of the abscess, and its discharge, the foul and tremulous tongue, with the weak and quick pulse, indicated either the effects of animal poison, or a very broken-down state of the system. I closely questioned if he had been working among diseased horses; he steadfastly maintained the negative.

Though I still had very grave doubts of the true cause of the disease, I then treated the case as one of rheumatism occurring in a system broken down by hardship, exposure, and drink, and prescribed accordingly a warm bath, and a

grain of opium every two hours, in the form of Dover's powder, along with a diet of milk, beef-tea, arrow-root, &c. Up to the 3rd of December this treatment was pursued, attended with a diminution of the pains, and a trifling improvement of the general aspect; on that day, however, I found that he had passed a very restless night, had been delirious, and was evidently much worse; he showed me his left knee and elbow, both of which were swollen, and very painful; these joints exhibited a dusky, erysipelatous hue, but did not present any appearance of pustules. I then ordered for him tonics,—the compound infusion of bark, with carbonate of ammonia, and continued the Dover's powder, three grains every three hours, with a grain of calomel. I also directed him to have four ounces of wine and two of whisky daily. On the 5th he seemed and expressed himself as feeling somewhat better again. During all the time in hospital, until this date, I may remark that he took nourishment pretty freely. On the morning of the 7th, however, I observed a very marked change for the worse: his voice had become hoarse and snuffling, the tremor of hands had increased, he was more restless, had diarrhoea, and profuse perspiration and loss of appetite. Upon the left knee and elbow, I observed several pustules in various stages of development, and on the left side of the nose, a large pustule.

By the next day, these several pustules had greatly increased in size, while others were observed on the limbs and body. He complained of his throat, and on examining it, I found it covered with foul ulcers. During all this period, the abscess of the thigh was poulticed, and continued to discharge the same unhealthy matter as at first, but the tumour of the fore-arm, which, at one time, gave signs of fluctuation, had disappeared. The pustules then formed rapidly; at first a small hard point, with a speck of matter or lymph in the centre, showed itself*, then the base spread, and each pustule became of a dusky red hue, and was surrounded by a hard, whitish ring, with a rose-coloured areola. In the course of twelve hours the size of each was equal to the disc of a six-pence, was flattened, and had irregular edges; the cuticle over each was elevated by a dirty serous fluid which being soon discharged, the sores became covered with an uneven scab, fissured in many places, and of a chocolate colour. Of course, at this stage of the disease, there could no longer be any doubt as to its true nature; and strict inquiries made among the car-drivers on the stands gained information that the unfortunate man, Clarke, had been working

* The hard points had quite the feel of "farcy buds" in the horse.

for some time—months, I believe—with a horse known to be labouring under chronic glanders; and, moreover, that at least one other horse had been infected by this animal, and had died of the acute disease.

From the 8th till the 12th December the symptoms increased in severity, and pustules were rapidly appearing on almost every point of the body, and in every stage of development. For two days he took no nourishment, save the wine and whisky, and had constant low, muttering delirium; the breathing became very hurried and laborious, and he finally succumbed to the malady on the evening of the eighteenth day after admission to the hospital, about thirty days from the first exhibition of illness, and nine from the appearance of the inflammation of the areolar tissue around the joints. I did not make any post-mortem examination.

This case, as will be seen, presents several points of interest, to only one or two of which, however, I shall allude.

The first point of interest is the seeming long time that elapsed before the disease became fully developed, some three weeks from the earliest day of sickening: in this respect it differs materially from several of the cases on record, in which, as in Dr. Henry Graves' cases, for instance, the disease followed almost immediately upon the inoculation with the glandermatter. In the case before us, the disease at first seemed merely a febrile condition arising in an unhealthy system, and the result of exposure to wet and cold, along with the formation of a "cold" or chronic abscess; then we had several of the symptoms of absorption of pus from this abscess, producing, seemingly, the usual results; and next, suddenly the marked features of acute farcy supervening. During three weeks, or perhaps a much longer period, the poison must have been working its insidious and deadly course, by effecting mortal changes in the fluids of the body. The next point of interest is the fact, that while the right thigh was the seat of the primary abscess, the left side alone was attacked with pustules, until a day or two before death, when, as I have already stated, they began to appear over the entire superficies. This confinement of the eruption, at least at first, to one side of the body, is usually observed in acute farcy in horses, and, I believe, the left or "near" side is that most commonly affected. It will be observed, that I have not mentioned any discharge as having taken place from the nares in Clarke's case; none had appeared, but it is pretty certain that if he had lived a few days longer, the mucous surfaces would have been fully affected, and the discharge established, and, besides, that the pustules would have broken down into gangrenous sores.

With regard to the treatment of this dire complaint, I fear that little can be done: however, there can be no doubt that tonics, especially the preparations of iron, offer the most likely means, along with stimulants, of arresting the destructive action of the poison, or of supporting the patient until it had been eliminated from the system, on the same principle that these means are used in erysipelas, and in cases of animal poisons being received, as in dissecting wounds.

It is remarkable, that between the 27th of November and the 3rd of December, my patient actually improved! Did the Dover's powder, and the warm baths, with the nourishing diet, effect this? Was the abscess on the right thigh a part of the diseased state, or merely an accidental accompaniment? Did the poison of glands only begin to work its course at the period of his relapse?

ART. XIV.—*Cases and Observations Illustrative of the Connexion between Certain Forms of Pneumonia and Renal Disease.* By BENJAMIN GEORGE M'DOWEL, A. B., M. D., Physician to the Whitworth and Hardwicke Hospitals, &c. &c.

THE object of the following communication is to direct attention to a combination of morbid conditions, which, as far as I know, has not hitherto been *specially* noticed, but which, it is conceived, may prove of some use in extending our knowledge of the etiology of certain diseases. I now allude to the frequent coexistence of certain suppurative inflammations with chronic renal disease, but more especially to the combination of the latter with the suppurative and gangrenous forms of pneumonia, of which a considerable number of cases have come under my observation within a comparatively short period.

This combination of morbid conditions has occurred too frequently to allow me to regard it as a mere coincidence; and I think I shall be able to furnish good reasons for adopting the opinion:—1. That when pneumonia occurs in connexion with renal disease, it has a remarkable tendency to assume the suppurative or gangrenous form; and 2. That we are to regard the morbid condition of the kidney as the predisposing cause of these very fatal terminations of a disease which otherwise terminates favourably in the vast majority of instances.

At a recent meeting of the Pathological Society (January 19, 1856), I exhibited a specimen of gangrenous pneumonia, in which a diseased condition of the kidneys likewise existed. The particulars of this case will be detailed further on (see