

The object was not to educate female doctors or midwives *de novo*, but to induce the "*dhais*" already in practice among the people to attend our hospitals and dispensaries, and to obtain from the Civil Surgeon and Sub-Assistant Surgeon some instruction in the physiology of parturition, and the difficulties and risks which sometimes attend the process. The reports issued by the Medical Department, regarding the Calcutta Medical Institutions and the Hospital and Dispensaries of Bengal for the year 1871, contain a précis of the results of this movement as far as it has gone. In the Calcutta Medical College a class of "*dhais*" was formed, but it was found impossible to induce the regular practising "*dhais*" to attend it. "Ten young women had been admitted for training; three of these were removed for immorality; one for disobedience of orders; one ceased attending; one was withdrawn by her friends; one promised well, and the remaining three underwent a satisfactory examination on the subject of natural labor." Government, in commenting on the result of the experiment, insisted on the necessity of selecting for instruction only "*dhais*" already in practice. In the mofussil it was found easy enough to obtain "*dhais*," but almost impossible to induce pregnant women to come to the hospitals and dispensaries for confinement. Practical instruction could not therefore be imparted. Dr. Wise, Civil Surgeon of Dacca, found that the three women, who had undergone instruction in the Dacca Mitford Hospital, could not obtain any practice in that town. He writes a very interesting report on the practices and prejudices of the people of Dacca and Eastern Bengal regarding midwives. He is now endeavouring to impart instruction to "*dhais*" actually in practice. He mentions in another report that one of the most popular and successful "*dhais*" in Dacca was taught by the late Dr. A. Simpson. The results attained in other dispensaries in Bengal are thus summarised by the Inspector-General of Hospitals:—

"The whole number of cases of labor, treated in dispensaries during 1871, was 94. Of these, 35 were cases of natural and 59 of difficult labor. The greatest number of cases occurred in the Moorshedabad dispensary, where 13 cases of natural labor were treated. In the Dacca Mitford Hospital 12 cases of difficult labor were admitted. In Moozufferpore and Midnapore there were 6 cases; in Hooghly and Howrah 4; in Burdwan, Purulia, Mysadul, Khoordah, Pooree, and Bhudruck, there were 3 cases treated; and in 24 other dispensaries, one or two. In Burdwan a "*dhai*" is still employed, and a separate ward exists, but cases are very few. The "*dhai*" has been dismissed at Midnapore. In Hooghly the midwifery class is kept up, and the Civil Surgeon reports favorably of the progress of the women. In Moorshedabad an assistant "*dhai*" has been appointed in addition to the "*dhai*" previously engaged. In Burreisal a female ward is about to be erected, but the midwife has been dispensed with since April 1871. In Samoo-goodting Mr. Apothecary Cooper has aided several women in labor successfully, and has thereby won a reputation among the natives of that part. The "*dhai*" at Gya has been discharged. At Arrah a mehtrancee is kept as a nurse and "*dhai*." At Chuprah the effort to educate a "*dhai*" has failed. At Monghyr the "*dhai*" was dispensed with in October. At Moozufferpore, where a "*dhai*" is entertained, several confinements took place. There are two "*dhais*" at Bhaugulpore, but only one case (of difficult labor) was treated. On the whole, the move-

ment is not making rapid progress, but there are some evidences of improvement."

In a recent resolution on this subject the Government of Bengal, while acknowledging the very partial success of the movement up to the present time, urges Civil Surgeons to persevere. In this we most cordially unite with the Government, and we regret much to observe that a contemporary, misapprehending the real intention of the scheme, has treated so grave and important a subject with a flippant levity which is entirely misplaced and uncalled for. If the dispensary report chronicled no success in this matter, except the following, there would be some reason for congratulation:—

"**BHUDDRUCK BRANCH DISPENSARY.**—Three cases of difficult labor were successfully treated by the native doctor (vernacular licentiate class native doctor Obhoy Churn Ghose.—*1st*,—a young girl of 15; in labor six days; child dead; head impacted in pelvis, opened with a common scalpel, and bones severed with a pair of nippers; extraction successfully accomplished; a good recovery; *2nd*,—girl of 18; in labor 24 hours; hand presentation; child dead; operation of turning performed; extraction accomplished satisfactorily; patient recovered; *3rd*,—a woman aged 36; in labor five days; child dead; shoulder presentation; turning and successful extraction; patient made a good recovery. These cases are most creditable to the native doctor."

It is gratifying to observe that so many as 94 cases of labor were treated in our dispensaries. As the people come to understand our motives and practice better, they will become more and more ready and anxious to seek our aid. The State cannot free itself of responsibility in this matter, and knowingly permit practitioners, who are ignorant and unskilful, to endanger the lives of subjects, without making some effort to instruct them. From the time of Pharaoh downwards, Governments have recognized the importance of midwives and their practice, and we trust that the Government of Bengal will not be induced to desist from its benevolent endeavours in this matter by the thoughtless raiillery of the lay press.

## Official Paper.

### REPORT ON CHOLERA IN THE GUJRAT DISTRICT.\*

By R. J. QUNNELL, M.D., *Civil Surgeon.*

1. The first intelligence of the approach of the epidemic was communicated by a telegram from the Secretary to the Local Government to the Commissioner of the division, a copy of which was received by the Deputy Commissioner of the district as early as the 3rd May. From this telegram and a subsequent circular, it was apprehended that the native pilgrims returning from Hurdwar were infected, and were spreading the disease by communication in different directions through the country. But as the Grand Trunk Road, it was supposed, would be followed as their main line of route, those districts intersected by it, would naturally be exposed to the most danger.

2. The Grand Trunk Road runs almost through the centre of this district, and the situation of Gujrat, the chief town and the jail, is not more in a direct line than 300 yards off it. But the civil station, which is traversed by all the Government dâks and bullock train traffic, as also by the travellers to and from Cashmir throughout the hot season, lies about three-fourth of a mile to the north of the city.

\* This report has been placed at our disposal by the Inspector-General of Hospitals, Indian Medical Department.

3. On receipt of the communication referred to above, a meeting of the Board of Health was immediately convened, and preventive measures organized without delay; what these consisted in will be described further on. Authentic information of the appearance of the epidemic in the neighbourhood of this district was received in a report of its outbreak at Sealkote on the 24th May; subsequently, on the 15th June, at Gujranwala; Bhimber (and the Cashmir border) 1st July; and Jhelum 12th July. From the above record it will be observed, that the disease had invaded three sides of the district, and had remained prevalent in its immediate neighbourhood for nearly three months, before showing itself within it.

4. The first place attacked in this district, was the village of Futtehmasa, situated on the Sealkote road, 10 miles east of the Sudder Station. The total number of inhabitants of this village is 827. The first case was a man who has returned to this village on the 3rd August after a visit to Lahore. He was taken ill on the day of his return, and died on the 6th.

On the 7th August, no less than ten persons were attacked, most of whom were friends of the deceased, and had remained present with him during his illness. On the 8th, 9th, and 10th, there were no fresh seizures; but on the 11th there were seven. On the 12th one, on the 15th two, and on the 16th three; in all there were 24 cases in Futtehmasa, of which number 10 died, and 14 recovered.

5. Sporadic cases were now reported from different parts of the district, along the Grand Trunk Road, &c. Details according to rotation of dates will be found in the statement appended. The place which suffered next in succession was Koonjah, a large pucca town, eight miles west of Gujrat, containing about 5,975 inhabitants. Although the number attacked in Koonjah was few, the disease assumed a most virulent form, and it is worthy of note, that the first victim here also was a new arrival—a Bunniah who had been to Jamu to transact business, and who said he had hurried back in consequence of the epidemic, which was then raging there. He returned on the morning of the 25th, was seized the same night, and died the following day, 26th. Between that date and the 1st September, twelve people, all of the one mohalla to which the disease confined itself, were attacked, and of this number only two escaped. Meanwhile, that is, on the 26th August, an outbreak occurred in an obscurely situated little village, called Khallas with only 410 inhabitants; it lies 25 miles to the north of Gujrat and about seven west of Bhimber. This little place, with no apparent reason, suffered far more in proportion than any other. The disease in this instance also was traced distinctly to communication. A cooly, who was engaged in the railway works at Nowrungabad, near Jhelum, and who was in the habit of revisiting his home in this village at intervals of a fortnight or so, returned on the 26th August. He took ill in his house on the afternoon of the 27th, and died in a few hours. Eight others, who, it is stated, shared their meal with him during the evening previous, were seized the same night. Two of these died before morning; two the night following 20th; one on the 29th, and three recovered. Then followed in succession, two fresh cases on the 28th; ten on the 29th; eight on the 30th; two on the 31st and two on the 1st September. It will be seen, therefore, that of the 9 first attacked, 6 died; and of 24 attacked since the 28th only 8 died; in all 33 seizures, out of which there were 14 deaths.

6. These are the only three places, *viz.*, first Futtehmasa, next Koongah, and lastly Khallas, where the epidemic appeared to any extent or prevailed with any severity in the district.

7. Altogether four cases were treated at the Sudder Station; the first of these was the son, about 14 years old, of a Sub-Engineer, Mr. Bowen, of the Railway, who was travelling through from Jhelum (where the disease was contracted) to Lahore. He arrived here at the dak bungalow on the night of the 9th August, with his son (a very weakly lad) in the stage of collapse. He died the next morning at 9 a.m. The second was a Hindo or Khutrie of the town, who had returned from the direction of Wazirabad the day before. He took ill suddenly after a wedding feast on the night of the 27th August, and died in a few hours, although entered at the time (upon the report of the native doctor) as cholera, I have since had reason to doubt its being a true case, and have therefore expunged it from the list.

The third was a police constable Sikh, who was admitted to hospital on the very morning of his return from Jhelum, to which place he had gone on escort duty. Although rapidly reduced to a very low stage of collapse, he made a good recovery. And the fourth was a traveller, who was discovered lying on the Grand Trunk Road in the very last stage of the disease, and was brought to the town cholera shed for treatment; he

was beyond all chance of restoration, and survived his removal only two or three hours.

8. I may mention here the arrival on the evening of the 10th of two American gentlemen, who, I afterwards learnt, were brothers, Messrs. Myers, they were on their way back from Cashmir, and seemed anxious to push on to Calcutta, in order to catch a steamer in which they had engaged a passage. The younger was seized with cholera five marches from Cashmir, but notwithstanding bad weather, exposure, want of proper diet, medicines, and other privations during the rest of the journey, he rallied; but was so weak, when he came in, as to be barely able to raise himself from the dooly. He appeared quite free from all symptoms of his disease, and promised a rapid recovery when they left for Lahore on the following morning, but from information received subsequently, it appears that he suffered a relapse on reaching Lahore, and died there soon after.

9. The following measures, in accordance with a resolution of the Board of Health Committee, were adopted immediately on receipt of the intelligence referred to in paragraph II.

The services of five of the most intelligent hakeems selected from amongst those who had just completed a course of training under me at the Sudder Station, were at once made available. Each was provided with a good stock of made-up medicines, which included a small supply of sago, arrowroot, bazar spirit, &c., and the five despatched to the five chief ferries, between the Sealkote ferry (at Nowshera) and Kadrabad, *viz.*—

Sealkote ferry (at Nowshera.)

Sodrah between Nowshera and Wazirabad.

Kathala. (Bridge of Boats.)

Ramnuggur and Kadrabad.

10. Their orders were, that they should inspect carefully all passengers by these routes; and isolate and detain for treatment any of them discovered to be suffering from the disease; reporting the same immediately to the Civil Surgeon and Deputy Commissioner. Translations in the vernacular of the "suggestions for the prevention of the spread of cholera" by the Sanitary Commissioner, were made and issued to them, in order that they should clearly understand what was necessary, and that nothing essential should be omitted in the proper management and treatment of any of the cases under their charge.

11. Orders were also issued by the Deputy Commissioner to the zaildars and lambedars in the neighbourhood of each of these ferries, to give every assistance, in the erection of temporary sheds, supplying provisions, and in carrying out strictly the rules enjoined in the Sanitary Commissioner's "Suggestions."

12. The co-operation of the Executive Engineer in charge of the large Chenab Bridge Railway establishment at Kathala was also invited, in regard to enforcing extra cleanliness in that locality, and the erection of a temporary hospital, and, as far as possible, to cutting off communication with all infected localities.

13. This immense establishment, with a large European community, became from the commencement a constant source of anxiety. Being directly on the Grand Trunk Road (at each side of the river) it was more liable under ordinary circumstances to infection than any other place in the whole district. Later, when the epidemic was reported actually in the neighbourhood, *i. e.*, at Sealkote and Gujranwala, a complete cordon with the aid of the district police and zaildar's chuprassis, were formed along the north-east, east and south-east borders of the districts. And later still, the same arrangement had to be extended along the Cashmir boundary, towards the north as far as Jhelum. Greater vigilance had, at the same time, to be exercised daily, as reports were received from time to time, showing that the epidemic was gradually making its way along the border between Jamu and Bhimber. It was from the latter place that it eventually extended into Jhelum spreading afterwards down the right bank of the Jhelum to Pind Dadankhan. Meanwhile, the country in this district within the borders just described remained perfectly free. At the ferries all cases of diarrhoea, vomiting, &c., or otherwise suspected to be in any way infected, were detained, examined, and treated, and people known to come from infected localities, were made to wash their clothes, and bathe their persons on leaving the boats. When the epidemic reached as near as Wazirabad, the Kathala Ghât was removed to a convenient point about half a mile down the river; and a second hakeem sent on to the Wazirabad side to watch for cases, and to return to the Wazirabad Dispensary, close by, such as were discovered with any symptoms of the disease. With this arrangement Kathala was protected to a very great degree from infection; the main thoroughfare for travellers being diverted from it. Together with the above measures, the City of Gujrat was placed

in quarantine, but only to the extent at this time of putting all ingress under check, all egress remaining uninterrupted.

14. The use of the new railway station on the Grand Trunk Road was obtained, and rendered the quarantine measures being carried out with as little discomfort and inconvenience as possible. All people wishing to enter the city collected here and were inspected by me, accompanied in most instances by the Deputy Commissioner, Mr. Bulman, morning and evening. While in quarantine, the people from infected localities were kept separate from the rest; the former detained a week under observation, and the latter were allowed admission at once. A cholera shed was at the same time, constructed in a selected site outside the city, for the isolation and treatment of any cases that might occur. In those places where an outbreak occurred, a stricter quarantine was immediately enforced.

Both ingress and egress were stopped. If a detached building was not available, a temporary shed was put up without delay. A hakeem was deputed immediately to the spot; the affected separated for treatment; the houses occupied by them closed and fumigated; all excreta removed and buried; and the water-supply and general cleanliness of the locality seen to. The general sanitary condition and water-supply of the towns and villages adjacent to the one infected, as also of those along the Grand Trunk Road, were also inspected frequently, and exertions made to improve their condition. Towards effecting all such measures, I consider it my duty to state, that every possible help was readily and cordially afforded by the district officer.

15. Beyond being on the whole of a somewhat milder form compared with most previous epidemics, the disease did not appear to me to present any thing new or unusual in its character or course. Its advent was not preceded by any indications of an altered state of health among the inhabitants, such as a disturbance of the digestive organs or fever, any more than is usually prevalent; nor were there any other premonitions of cholera, general, local or meteorological observable. Such cases as were taken in time were found readily amenable to treatment; no complications were noticed, and the recoveries in most instances were rapid. Nor were any sequelæ associated with the decline of the epidemic. \* \* \* \* \*

18. The epidemic prevailed in this district altogether seven weeks, during that period 105 people were attacked, of which number 58 died, a little more than half; the exact proportion being 55.23 per cent. The proportion was largest at Koonjah where (*vide* tabular statement) it amounted to 81.81 and smallest at Futteh Musa 41.66. It will be seen from the facts recorded, that the infection was imported in every ascertainable instance, reliable information as to the origin of cases remote from the Sudder station can rarely be obtained. Most cases of sudden death, it is still usual to report as "haiza" and the means of verifying these reports after they reach, are not easy. The difficulties in the way of compiling accurate statistics are, therefore, not few.

Statement showing the number of casualties from Cholera, and the different places attacked in the Gujrat District.

Name of Town, Village or locality.	POPULATION.			NUMBER SEIZED.			NUMBER DIED.			PROPORTION OF DEATHS TO NUMBER ATTACKED PER CENT.			Period of its prevalence.
	Adult.	Children.	Total.	Adult.	Children.	Total.	Adult.	Children.	Total.	Adult.	Children.	Total.	
Futtehmusa ...	536	291	827	18	6	24	5	5	10	27.77	83.33	41.66	1872 3rd to 16th August.
Khallas ...	216	194	410	30	3	33	13	1	14	43.33	33.33	42.42	27th August to 1st September.
Koonjah ...	4,086	1,889	5,975	10	1	11	8	1	9	80.00	100.00	81.81	29th " to ditto.
Gujrat ...	.....	6,451	.....	3	1	4	1	1	2	33.33	100.00	50.00	9th to 25th August.
Jiowanjal ...	515	322	837	1	...	1	1	1	1	100.00	...	100.00	17th August only.
Baria ...	792	550	1,342	1	...	1	1	1	1	100.00	...	100.00	1st September only.
Kadrabad ...	1,996	883	2,879	2	...	2	2	2	2	100.00	...	100.00	F. 4th to 12th ditto.
Jelalpur ...	11,273	4,353	15,626	2	1	3	2	1	3	100.00	100.00	100.00	F. 15th August to 10th Sep.
Shadiwal ...	4,489	2,600	7,089	1	...	1	...	...	...	...	...	...	16th September only.
Kathala ...	3,090	22	3,112	8	...	8	5	...	5	62.50	...	62.50	27th August to 10th September.
Kharian ...	1,209	617	1,826	2	1	3	2	...	2	100.00	...	66.66	13th to 21st August.
Kakrali ...	1,040	547	1,587	...	1	1	...	...	...	...	...	...	26th August only.
Damoo Chack ...	130	66	196	1	...	1	1	...	1	100.00	...	100.00	3rd September only.
Mandi ...	151	13	164	1	...	1	...	...	...	...	...	...	12th ditto.
Buzzurgwal ...	965	76	1,541	1	...	1	1	...	1	100.00	...	100.00	16th ditto.
Mandwal ...	216	150	366	4	...	4	2	...	2	50.00	...	50.00	13th to 15th September.
Kohar ...	2,289	734	3,023	...	2	2	...	2	2	...	100.00	100.00	26th to 28th August.
Grand Trunk Road ...	.....	.....	.....	4	...	4	3	...	3	75.00	...	75.00	14th to 30th ditto.
...	...	...	...	89	16	105	47	11	58	53.80	63.75	55.23	

Reviews.

*Fever and Cholera from a new point of view.* By ALEXANDER SMITH, M.D., EDIN., Staff Surgeon-Major, Statistical Officer to the Inspector-General of Hospitals, British Forces in India. (First notice.)

WHEN we reflect that we can at pleasure produce not only almost every departure from normal function, but the morbid changes themselves, that are witnessed in disease, in almost every organ and tissue of the body, by operations upon different portions of the nervous system, it becomes a matter of surprise that attempts have not more frequently been made to refer to disordered nerve function, the complicated and otherwise inexplicable phenomena which meet us daily at the bedside and in the post-mortem room. The subject is one of great interest, and we have long felt, that in the physiology and pathology especially of the vaso-motor nerves, the discovery of which is probably second only in importance to that of the circulation of the blood, will probably, ultimately, be found the key that will unlock many of the intricacies, and reveal not a few of the mysteries of the science of medicine. We accordingly find that in the periodical medical literature of the last quarter of a century various attempts have been made to grasp this subject and to

apply the lessons to be learnt from the discoveries of Claude Bernard and Brown Sequard, and other scarcely less eminent workers in this department of physiology, to the elucidation of the problems of disease, and to establish upon them a rational system of therapeutics. Those who have not given a special attention to this subject, will be surprised to find how much has been done in this direction; but it is only during the last few years that the subject has grown to such evident magnitude that it has forced itself upon the attention of practical and thinking men in all parts of the world, and that the leading minds of the profession have systematically grappled with its difficulties. The great difficulties have lain in our imperfect knowledge of the laws of this system of nerves, and the consequent apparently contradictory results that have been obtained by different experimenters on them, which it has been difficult or impossible to reconcile with each other, and in the great, almost absolute, want of pathological observations of their condition in diseases, the primary cause of which has been referred to lesions or disordered states of these nerves. Nevertheless, certain great laws have been, we think, incontrovertibly fixed with regard to the functions exercised by these nerves; and their pathology, meagre though it undoubtedly is, when taken along with their admitted physiological functions, and the symptomatology of many diseases, especially those of a febrile character, is such as to make it probable, that many morbid influences are exerted essen-