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MEDICAL PROGRESS IN INDIA DURING  
 THE PAST CENTURY.

THE commencement of the twentieth century is a fitting time for endeavouring to recall, in a brief sketch, the medical and sanitary progress of India during the past hundred years. To do so even briefly may enable our readers to appreciate the difference between then and now.

THE INSANITATION OF OLD CALCUTTA.

While the dawn of the twentieth century finds much, very much, still to be done in the way of sanitation and medical progress, yet the advance which has been made in sanitation at least is only to be understood by a knowledge of the indescribable filth conditions which existed a century ago.

The records are few and difficult of access, but in the pages of that delightful book, "*Echoes from Old Calcutta*," Dr. H. Busteed, of the Indian Medical Service, has pictured for us the life of the European in those days in Calcutta.

In 1790-1800 complaints were frequent about the insanitary state of Calcutta; the tank in *Lal Dighee*, now Dalhousie Square, was the main source of the water-supply, and it received the drainage of a neighbouring Portuguese burying ground. No wonder, writes Dr. Busteed, that the inhabitants on whom these unpleasant facts obtruded took every opportunity of converting the water into arrack punch before consumption, or that those who could afford to do so, gave it up altogether by the substitution of mulled claret or madeira, which drinks were much in fashion in those days. No wonder also that a most ordinary formula for accounting for the absence of such and such a one from society was that "he was down with a putrid fever or a flux." Little wonder too that as the close of each October brought round the end of the deadly autumn season, those Europeans, who were fortunate enough to find themselves above ground, met and thankfully celebrated their deliverance by the truly British device of large banquets.

But bad as was (and is) the climate of Calcutta, and terrible as was the insanitation of those days, yet much of what was put down to "unwholesome weather" was really due to the habits of our predecessors. "Drink deep in rosy port in September" was an advice often given and too faithfully followed in those days.

A century ago medical skill was not much thought of, and it was certainly unenlightened. Anyone who called himself a doctor was allowed to prey upon his fellowmen, and it is on record that a midshipman set up as a doctor, and "handled his patient's pulses as he would a rope."

ORGANIZATION OF THE MEDICAL SERVICE.

Nevertheless it was before the end of the eighteenth century that, as will be seen in the admirable articles on the history of the Bengal Medical Service by Major D. G. Crawford, I.M.S., an attempt was made to organise the Medical Services of the country, *viz.*, in 1788,\* when Lord Cornwallis issued an important minute, ordaining that all medical gentlemen of the Company should be entered upon one general list, and have commissions granted to them agreeably to their proper rank as Army Surgeons. It also laid down that whenever employed in the civil line, they were to be considered as lent to that department and liable always to be recalled to their duty as military surgeons, a liability which the Government of India has availed itself of three times in the last six years of the century just closed.

FOUNDATION OF MEDICAL SCHOOLS.

With the organisation of the medical department attempts were made to arrange for the medical education of the Native assistants, who before that time, picked up what knowledge, they could by attendance on the hospitals and the informal teaching of the civil surgeons. The first great step was the founding of a Vernacular Medical School in Calcutta in 1822, followed by the opening of the Calcutta Medical College in 1834, by that of Madras in 1835, and of Bombay in 1845. Since that date Vernacular or English Medical Schools have been established at Dacca, Patna, Cuttack, Poona, Ahmedabad, Agra and Dibrugarh.

\* Before this another order of Home Department, dated 20th October 1763, was published. From this order dates the commencement of the Indian Medical Service.

We have not been able to find out the exact date on which hospitals and dispensaries were first opened to the general population of India, but the history of the English in India shows that from the earliest days of the East India Company, its medical officers were allowed to give medical aid to the people of India. It was in 1645 that Gabriel Boughton, Surgeon of the ship *Hopewell*, treated the Emperor Shah Jehan so successfully that as his reward he asked for additional privileges for the struggling Company, which had just opened factories at Balasore and Hooghly. And at a later period William Hamilton, as a reward for having treated the Emperor Feroshah successfully for hydrocele, received as a reward for the Company a grant of the 38 villages in and around where Calcutta now stands.

In 1786 a code was published laying down regulations for the duties of medical officers attached to the civil department, so that it is likely that a regular system of civil hospitals and dispensaries had grown up before that day.

#### LUNATIC ASYLUMS.

As regards Lunatic Asylums, we find that in 1787 lunatics were looked after in the houses of surgeons, and we read of Assistant-Surgeon Dick receiving a grant of Rs. 200 a month for certain female lunatics under his care. Asylums gradually grew up, but up to the middle of the century the treatment of the mentally affected was crude and rough in India as everywhere else. Major D. M. Moir, I.M.S., informs us that there still exist in the Calcutta Lunatic Asylum certain underground dungeons or holes, which up to the middle of the century were used for the confinement of the more violent insanes. It is not, however, till within recent years that we find proper arrangements for the due care of the insane and for the teaching and training of the asylum attendants. We have on previous occasions referred to the changes which are about to take place in the management of the asylums of India, and with the new century we have every reason to expect that a new era is dawning for the insane in India.

#### VACCINATION.

India was not long behind the rest of the world in following up the great work of Jenner in the introduction of vaccination. The first lymph to reach India was sent by De Carro, of Vienna, who had been one of the first physi-

cians in Europe to follow the teachings of Jenner. The first lymph, however, did not come direct from Jenner, but was equine lymph derived from a strain produced by Sacco of Milan. Of all the sanitary benefits conferred by the English on India, it is certain that nothing has been of greater benefit than the practice of vaccination. The dangerous practice of inoculation of small-pox has long been in vogue in India; it was probably introduced by the writings of the Arabian physicians, and a large percentage of the present adult population of India still bear the marks of inoculation, showing that it was very considerably in vogue as recently as twenty years ago. Inoculation has not yet been completely stamped out, but every year the reports of the Sanitary Commissioners bear testimony to the slow but sure spread of vaccination in India.

#### “THE BOUNDARY LINE BETWEEN THE PAST AND PRESENT.”

Coming next to more recent times the marked feature of the medical history of the past quarter of a century has been the spread of sanitary science and of preventive medicine. Modern sanitary science in this country may be said to date from the publication in 1864 of the report of the Royal Commission. This date, as Surgeon-General Harvey has said, “may be taken as the boundary line between the past and the present of medical work in India.”

Sanitary Commissioners were appointed for the Provinces, and the great struggle against disease was begun, an idea utterly foreign to the mind of the Native of India, who had been accustomed for centuries to look upon disease as a visitation of God, and as something that merely human efforts were powerless to combat. The fight has been an uphill one, and though progress can be recorded, the report of the recent Plague Commission has been a rude awakening for those who thought that the ingrained convictions and prejudices of centuries were to be removed either by the action of Government or by the spread of a merely literary education among the people.

Perhaps one of the most remarkable advances of the past dozen or so years has been the awakening of the Government of India itself. A dozen years ago it was dangerous for a medical man to preach the water origin or spread of cholera, and medical men have even been

muzzled who have dared to be in advance of their times. Relegation to "military duty" is no longer the penalty of unorthodoxy; on the other hand, Government resolutions discuss, with all the confidence of an imperfect acquaintance, the most abstruse points in bacteriology, or of the doctrine of immunity.

#### THE DISEASES OF INDIA.

AS regards diseases it is probable that they remain, in most cases, much as they were in the commencement of the past century. In some cases, however, they have lost their greatest terrors. Small-pox at least has to a large extent disappeared under the influence of a wide extension of vaccination. Typhus fever, except in remote frontier villages, is almost unknown. Cholera, though it probably existed for hundreds of years in India, first was scientifically studied in 1817, and the last decade has seen the introduction of a method of anticholera inoculations which augers well for the future. Plague has been known in India for centuries, and the past hundred years have seen several outbreaks; it still, however, remains, and the outbreak which started in 1896, introduced in all probability from China, has slowly spread over every province in India, and may be said to rage still with scarce diminished virulence.

A hundred years ago it is probable that dysentery was a much more formidable scourge than it is ordinarily nowadays. The "putrid fluxes" of 1800 were probably, to some extent, a measure of the depth of the insanitation which prevailed. Malarial fevers still very largely prevail, but we more rarely find nowadays cases of the severe types described by the earlier writers on the diseases of India. Nevertheless at times such outbreaks do occur, as during the past autumn in the Punjab and in certain parts of Central Bengal. So far, little or nothing has been done to mitigate this veritable plague, except by the extended sale of quinine. It is probable, however, that India will soon take its share in devising means for combating this evil. Modern ideas as to the spread of the malarial fever, in which Indian Medical Service officers have taken a honourable share, have taken root and will in time bear fruit; it is at least something for the modern school of malariologists to boast of that the prevention of malaria is one of the most commonly discussed problems of preventive medicine at the present day. Whether time will

approve all or much of what is now somewhat confidently asserted time alone will tell.

Enteric fever is a disease which has assumed a vast importance of recent years in India as everywhere else. The confusion which long reigned over the nature of the continued fevers of India is far from yet being cleared up. The recognition of enteric fever, as the most formidable disease of the European in India, has not yet led to any considerable reduction in the waste of life caused by this disease, but an enormous amount of work has been done, and the recent introduction of the antityphoid inoculations probably opens up one great means for its future control. It is generally believed that this disease has for long prevailed in a mild form among the Natives of India, though often disguised under the name of "remittent fever" or other obscurant names. The known facts of its etiology suggest that it is extremely improbable that a disease known to be fostered by insanitation should not have existed amid the manifold insanitary surroundings of the Native of India. A few have suggested that typhoid fever is of recent introduction into India; among the most recent promulgators of this view we find Dr. W. J. Simpson, who, at an address at the last Sanitary Congress at Aberdeen, made such a statement, but owing to the imperfections of diagnosis in earlier times it is a point which must be left unsettled.

The still more recent discovery and recognition of Malta fever as one of the fevers of India shows that we still have much to learn, and is at the same time a great step forward in the differentiation of the fevers of India.

This naturally leads us to mention the most important step which has yet been made in medical progress in India;—this is the establishment of modern laboratories.

#### MODERN LABORATORIES IN INDIA.

It was the ravages of enteric and cholera that led to the establishment of the Agra Laboratory; it was the spread of plague which led to the foundation of the Research Laboratory at Bombay; it was to some extent the desire to escape from the great expense of sending soldiers bitten by rabid dogs to Paris which led to the establishment of the latest laboratory in India—the Pasteur Institute at Kassauli. We are not, however, disposed to quarrel over the reasons which led to their establishment;

it is sufficient that we have got them, and we can only hope that when financial considerations permit we will be able to chronicle the establishment of many more. Not till then can we hope for the dawn of a new scientific era in medical progress in India.

We have thus lightly sketched the medical progress of the past century, and in closing this sketch it is only right to state that much of this progress is due to, and has been in the hands of that much threatened institution, the INDIAN MEDICAL SERVICE, which in spite of all assaults on its entity and well-being, is still, now more than ever, fulfilling its function as the great medium of medical progress in India.

#### MEDICAL PROGRESS IN BOMBAY.

It is now more than fifty years ago since the foundation of the Grant Medical College in Bombay gave the first start to medical education in the Bombay Presidency. So successful has the scheme turned out that not only are the College buildings too small to accommodate the students, but they will have to be very largely added to in order to afford anything like the necessary space.

In the beginning there were a few only, five or six, who had to be attracted to the profession by the grant of a practically free education; now the amount of Rs. 3,000 is paid annually in fees. Some of the very first students are still alive, and doing a large practice, some have also their sons to help them as partners, so that a second generation of medical practitioners is now actively engaged in the practice of the profession. It was once thought that the Natives of India would with difficulty be persuaded to dissect, or take up pathological work; not only, however, has this turned out erroneous, but some very good and careful dissectors have yearly completed their anatomical studies, and numbers of Parsees, Hindus, Christians, and even Mahomedans, have graduated successfully. In fact for the first time a real medical profession has been created, which occupies a good position in public estimation, the members of which make not only a livelihood, but in some instances have most lucrative practices. No doubt the same can be said for the legal profession, but legal work had never the drawbacks which were found to be inimical to the launching of the medical profession. A

middle class, comprising the professions and business men now exists in the large cities, perhaps for the first time in the social history of India, there having been practically hitherto only the two classes, the very rich and the very poor.

Although not quite complete in all its departments, the Grant Medical College and the J. J. Hospital teaching have been steadily progressing. The great difficulty, for instance, of dissecting in this climate has to a great extent been overcome by a more successful plan of injecting bodies, and the work has in consequence become more thorough and satisfactory. The Physiological and Chemical Departments have been extended, and a quantity of apparatus for experimental and other purposes has been gradually added; the use of the microscope in both the Physiological and Pathological Departments is thoroughly taught by the respective professors, and the recent discoveries of physical science can be demonstrated in the clinical laboratories. The work in the medical and surgical wards has undergone a similar change to that in Europe: stone for instance is seldom removed by cutting, but almost entirely by crushing; abdominal operations, and notably ovariectomies, have much increased in number. So also in the case of cerebral surgery advances have been made under the protection of antiseptics and aseptic treatment. The operation and *post-mortem* theatres have been much improved, and special attention is paid to the performance of minor operations by students. The teaching in the out-patient rooms is now much more systematic than in former days, and the attendance of students much more strictly insisted upon. The division into surgical and medical cases and the attendance of surgeons and physicians in each department as in European hospitals is now carried out. An ear and throat department has now been working for several years past. The instruction at the College and hospital has been thorough and practical as proved by the fact that some of our graduates have succeeded in obtaining the best British diplomas, and what is more a number of "plucked" students go yearly to England, and return with qualifications gained at the very first attempt.

The standard of the various medical examinations in Bombay is fair, and compares favourably with that of some examinations in Europe;