

**MEDICAL MISSIONARY OPERATIONS AT BALASORE, INDIA**

*To the Editor of the Boston Medical and Surgical Journal.*

**DEAR SIR,**—I often wonder that your Journal contains so little in regard to the operations of **Medical Missionaries** in different parts of the wide

mission field. Were it not for an occasional editorial remark, one would hardly know that such a body of men existed. And still, from the large number in the field, as well as from the great facilities they enjoy for the practice of medicine and the exercise of the surgical art, surely the medical public has a right to expect something more than it has received in the way of reports and important information. A desire to hear from others, induces me to send you a brief account of some of our operations here.

I have now been in India more than eight years, during which period a portion of my time has been devoted daily to attendance upon the sick. My patients have been emphatically the *poor*. The diseases which prevail most are cholera, fever, dysentery, dyspepsia, cutaneous diseases, and diseases of the eye. European medicines usually produce a wonderful effect on the native constitution, so that difficult cases, except in cholera, are not very common; consequently the proportion of cures to the number of patients has been greater than could reasonably be expected among a more civilized people.

As machinery is almost entirely unknown, and the people are of a timid disposition, surgical operations, such as result from accident, are comparatively rare. Diseases of the eye, and tumors of various descriptions, afford the principal field for the exercise of the surgeon's skill. The Hindoos, though they frequently manifest the most astonishing fortitude under self-inflicted torture endured from religious motives, often exhibit a surprising aversion to the knife—so much so, that a man who would dance before an idle multitude with a gun-bayonet thrust through his tongue, walk over burning coals with naked feet, or swing aloft in the air on hooks piercing the thick skin of his back, would nevertheless suffer perpetual blindness, or go down to a premature grave, rather than submit to a surgical operation. Religious fanaticism, and the shouts of an admiring multitude, afford an antidote to voluntary torture which the surgeon's knife does not possess. Disease, too, often cools one's ardor, and prostrates the powers of life to such an extent, that what might be endured with composure in health, would overpower the debilitated patient. The consequence was, that with the exception of an occasional operation for cataract, excision of a tumor, or the adjusting of a fractured or dislocated limb, few operations were called for.

*Painless surgery*, which may well be classed among "God's best gifts to man," and which should call forth the gratitude of every philanthropic heart, was just what was necessary for the poor effeminate Hindoos. On the first announcement of the application of ether as an anæsthetic agent, I lost no time in fitting up a rude inhaler, and appropriating the great discovery to the cause of suffering humanity. Only one case offered, however, for its exhibition, ere chloroform was announced. The inhaler was laid aside, and a quantity of the latter article obtained, as being safer and less difficult of application. It operated like a charm. The first case that offered was one of extensive necrosis of the tibia, in which a large portion of diseased bone was cut away with a carpenter's chisel and mallet, the patient in the mean time quietly taking a nap. The second was an amputation of the arm of a child above the elbow, during which

the patient slept as quietly as though it had been soothed to sleep by its mother's lullaby.

The idea of painless surgery was new—it was almost miraculous. It took the people by surprise. Patients came pouring in from all directions, some from a distance of a hundred miles. Since that, my leisure has been pretty well occupied. During the hot and rainy seasons, when I have been constantly at home, we often had forty patients of a morning. As my other missionary duties are pressing, I have made it a rule that all should come at that time, except in cases of necessity—as in cholera, or in case of accident, when they are at liberty to call at any hour of the day or night; but so frequent are the interruptions at other times, that I have been under the necessity of erecting a palisade around my study to protect myself from intrusion. Only a small proportion, however, were surgical patients, and chloroform has been administered to but a few of those who have been operated upon. As some danger attends its use, I have not employed it except in cases where the patients would not submit to an operation without it. The government surgeon here disapproved its use, on account of the fatal cases that had occurred. Still I determined to persevere, trusting the event to a kind Providence. Thinking that these accidents might have been the result of asphyxia, produced by the too sudden or too abundant introduction of the vapor into the lungs, I was careful to administer it in moderate quantities and very gradually. A handkerchief, doubled in the form of a cone, sprinkled with thirty or forty drops, and applied loosely over the mouth and nose, seemed to secure the desired object, though three or four applications were often necessary. The result of this course was so satisfactory, that when, a few days since, I met, in your Journal, with Prof. Simpson's recommendation to administer it rapidly, and in large quantities, I still preferred my own plan though at variance with so high authority—and I was soon after not a little gratified to learn that the high authority of Dr. Mussy was in favor of the views I had adopted.

No unfavorable symptoms have as yet occurred, and the application of hartshorn to the nose has been sufficient to restore the patient immediately to the natural state. One great advantage which chloroform seems to possess, and which I have not seen noticed as yet, appears to me to consist in the alleviation of pain subsequent to the operation. It is well known that the after-pains in child-bed are often induced by the recollection of the sufferings of labor—and may it not be inferred that the sufferings which generally follow severe surgical operations may be induced or aggravated from a similar cause? I have been surprised at the slight degree of pain experienced by some of my patients. In the operation for necrosis, above mentioned, in which the parts were much lacerated, inveterate pain was experienced for a few hours, when it entirely subsided. In the case of arm amputation, no pain whatever was experienced. Several others have been nearly or entirely exempt, only complaining of soreness on pressure. In two or three cases I have been under the necessity of making some application in order to produce the necessary adhesive inflammation. I regret to add, that in one instance chloroform has failed. A woman, with cancer of the breast, took four drachms,

which produced intoxication and apparent insensibility, but the first application of the knife painfully showed that the usual anæsthetic effects had not been realized. As I had previously given a dose of laudanum to assist the operation of the chloroform, I fancied that this might have been the cause of the failure; but a second trial, a few days after, resulted in a similar disappointment. As she could not be persuaded to submit to the operation while in a state of sensibility, the case was abandoned, and she went away to die.

A register of all cases treated has been kept the past season, the summary of which will give you a view of the extent of our operations from April to November, eight months.

Whole number of cases,	1751
Medical cases,	1032
Surgical cases,	719
Surgical operations,	65
Operations under the influence of chloroform,	12

Among the medical cases, there were of fever, 109; cholera, 95; rheumatism, 95; syphilis, 29; dysentery, 29; diarrhœa, 27; indigestion, 139; consumption, 2; cough, 19; asthma, 13; cutaneous diseases, 64; spleen, 4; inflammation of the liver, 10; leprosy, 4; miscellaneous, 395.

A great proportion of surgical cases have been diseases of the eye, ulcers, affections of the joints, &c. Some of the principal operations are as follows:—Amputations—arm, 1; toe, 1. Dislocations—jaw, 1; elbow, 1. Fractures—arm above the elbow, 1; clavicle, 1. Cataract, 1. Pterygium, 20. Excision of tumors, 12—including one cancer of the breast, and several others of large size, mostly under the influence of chloroform. Entropion, 5. Obliteration of arteries for the cure of local diseases, 10. Operation for the cure of hernia, 6.

As the Oriyas have no medical literature worthy the name, and their practice is mostly empirical, I have been anxious to introduce the principles of European practice so far as practicable. To facilitate this object, I published, last year, a concise treatise on Anatomy, Medicine and Surgery, which has been well received. This season, a class of young men, mostly native Christians, have been collected from different parts of the Province, to pursue a thorough course of medical study. This class now numbers eleven, and there is a prospect of an increase hereafter. They devote their time entirely to study and the labors of the dispensary. They are supported mostly through the benevolence of the European public. As they have no text books, save the little one above mentioned, I am under the necessity of communicating the necessary instruction in the form of lectures. These are written down as delivered, and afterwards copied out by each student. In this way I hope to go through with a pretty thorough course of medical science, translating into Oriya whatever may be necessary to prepare our students for the duties of the profession, so far as the diseases of this country are concerned. Judging from present appearances, I think they bid fair to make good progress, as they pursue their studies and labors with an ardor never before manifest in any other cause. Through the generosity of a few friends, the means

for providing a small set of chemical apparatus have been obtained, which is now on the way from America.

As our Society renders no assistance for medical purposes, it has been somewhat difficult to obtain the necessary means for sustaining all our operations, but by sending circulars, soliciting donations, throughout the Province, a nearly sufficient sum has been obtained for present purposes. Until this season I have never been able to obtain a farthing from the heathen for any benevolent purpose; but chloroform seems to have put them in so pleasant a mood, that they have recently contributed \$25 to provide medicines.

The influence of my medical labors, religiously considered, is, I think, highly favorable. They bring me much more in contact with the people, create a very desirable intimacy, and make them feel that I am their friend, and can do them good. All this prepares the way for the gospel, and opens their hearts to the influence of truth.

*Balasore, India.*

O. R. BACHELER.