

I conceive that the profession has lost, and the public has gained.

Personally, the doctor is no better off. It is harder to get a living. The doctor has lost his pre-eminence as the universally respected arbiter of fate.

Let me not be misunderstood. The doctor lives for his patient; everything that does the patient good is his good and his glory. And yet does he stand just where he did? By and by he may again be every way the superior. Hospitals impoverish the doctor and enrich the public. Hospitals benefit the professional knowledge and pick the professional pocket. Is not this true? Whom does the abuse of medical charity injure? It breeds pauperism, and it robs the doctor. Christian Science has so large a following that all previous claims of so-called "irregular practice" are dwarfed to a distant perspective. The whole doctor is now cut up into so many little parts by specialties that his patients are fewer, although his fees must be, to individuals, larger. The world does not furnish patients enough to feed the too numerous doctors, — I mean patients who pay their bills, for the doctor must pay his.

Specialists have fewer patients; they must charge larger fees. The professional earning life of the specialist is shorter than that of the old general practitioner; he is supplanted earlier and by newer lights.

Per contra, his training must be longer, his machinery more, his plant more expensive. It is true that cities only can support specialists, but cities constantly increase at the expense and to the loss of country life. The patient suffers in pocket, for he has to pay three, four, even six doctors in lieu of one. What wonder he seeks the hospital?

What is the effect on the patient? Is the patient as reliant and as happy under the care of several doctors, and of no one in particular?

The single doctor, the general practitioner, the family doctor, to use convertible terms, was a pastor, a mental healer, a refuge of last appeal, a father confessor, as well as a medical curer or caretaker. By long familiarity he knew the body and the mind of the patient, his tendencies, his inheritances, his constitution.

Specialists, with occasional calls and limited fields of vision, do not respond to these needs. More might be said of the inestimable advantage of overseeing the whole body, and not a part. There can be no isolation of functions.

What is the effect on the doctor of focusing his limelight on a square inch of the human economy?

Let us see, for a moment, how medicine and surgery are subdivided.

General medicine has lost in specialties, the general care of the brain, the nerves, the lungs, the heart, obstetrics, the diseases of women, the diseases of children, partially the stomach, wholly the skin.

General surgery has specialized the eye, the ear, the throat and nose, the kidneys, the genito-urinary system, the bladder, the uterus and ovaries, fractures, spinal and other deformities, the brain, perhaps the rectum.

It is thus evident that the young man who once said, I will be a medical doctor, or, I will be a surgeon, does not become either. Or if he studies all branches, he is allowed to practice few.

Race suicide, as one instance of the effect of specialties, is increased, for it costs too much to have a baby. The apartment house, or flat, culminates the difficulty of continuing our species.

On the other hand, medicine and surgery have gained the antitoxins, serum therapy, hygiene, preventive medicine, asepsis.

Medicine is becoming a science. But it is more laborious and more expensive, and less required, to apply the art.

Now in this lower view of professional needs, let us not lose sight of the prime factor that the doctor, as such, exists to serve, preserve, keep life in others, to avert disease and to postpone death, as well as to relieve suffering. There is nothing nobler. It is self-abnegation, angelic altruism. The old general practitioner tried hard to do good; So does the modern specialist. Motives are right. Means are in doubt.

Modern chemistry, research, experimentation clarify our medical vision. The telephone and the automobile have reversed all the old clocks. And the problem is for the young doctor to learn to adjust his life to the new order. That is the way the old doctor sees it. But he, too, believes as firmly as ever in the nobility of his profession as it exists to-day.

Doctors will always be needed, always be honored. There is no fear they will not always be found on the "firing line." But a new generation must have a new way of living, and of getting a living.

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PROGNOSIS IN INFANTILE PARALYSIS.

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At the request of the Massachusetts State Board of Health, in April, 1911, I undertook the investigation as to the present condition of those cases of infantile paralysis which were reported to the Board in the year 1907, in order to ascertain the number of recoveries occurring in the four years and thereby to increase our knowledge concerning the prognosis in this disease.

Letters were sent to all physicians who had reported cases in 1907, asking whether or not such cases had recovered and, when recovery was reported, such cases were seen personally unless they had disappeared or moved. If they could not be seen, all available information was obtained about them.

Of the 234 cases, 22 had disappeared, leaving 212 the termination of which is known; of these, 57 (27%) were reported as having recovered; 11 died in the acute stage of the disease and 8 others subsequently died of other diseases, 2 of these having recovered from the paralysis.

It was found that there were three classes of recovery: (1) Complete recovery without atrophy,

(2) recovery with complete function but with some atrophy, (3) recovery with some hypertrophy of the affected limb.

The table shows the proportion of each of these:

		Per cent.
Complete recovery without atrophy,	16	28.1
Functional recovery with atrophy,	21	36.8
Recovery with some hypertrophy,	3	5.3
Recovery, presence or absence of atrophy unknown,	17	29.8

Leaving out the last group, and averaging those in which the presence or absence of atrophy is known, shows that for every 4 recoveries without atrophy there were 5 with atrophy. When atrophy was present the maximum amount noted was as follows:

	Inches.
Calf,	1 $\frac{3}{4}$
Thigh,	1 $\frac{1}{4}$
Arm,	$\frac{1}{4}$
Forearm,	$\frac{1}{4}$

In most cases the atrophy was much less than this, a difference of $\frac{1}{8}$ in. being counted as atrophy, but in all such cases examined function of every muscle was perfect. Three cases had only $\frac{1}{8}$ in. atrophy of one limb; 2 cases only $\frac{1}{4}$ in. of one limb; 5 cases only $\frac{1}{8}$ in. of one limb and $\frac{1}{4}$ in. of another; the other 11 cases had more than $\frac{1}{4}$ in. atrophy. The amounts of hypertrophy recorded were in two instances $\frac{1}{4}$ in. and in one $\frac{3}{8}$ in., all of the calf. One of these cases recovered in two months and has had intermittent massage up to date; one recovered in three weeks, having had daily massage for that time; one recovered in three months and had daily massage for six weeks. The duration of the treatment apparently does not account for the hypertrophy in the last two cases.

The severity of the attack in the recovered cases was classed as:

		Per cent.
Severe,	14	24.5
Moderate,	9	15.9
Mild,	28	49.1
Not noted,	6	
Total,	57	

The distribution of the paralysis was as follows:

One lower extremity,	12
Both lower extremities,	9
One upper extremity,	6
Both upper extremities,	2
One lower and one upper extremity,	10
Three extremities,	7
Four extremities,	5
Face alone,	1
General,	1
Not given,	4
Total,	57

In addition to this distribution, paralysis of the face also existed in four, of the back in five, of the face and back in one, and of the abdominal muscles in one.

The time of recovery in the 57 cases was as follows:

1 week or less,	2
1 week to 1 month,	8
1 to 2 months,	8
2 to 3 months,	5
3 months to 6 months,	10
6 months to 12 months,	9
1 to 2 years,	5
2 to 3 years,	5
No data,	5
Total,	57

To illustrate late recovery, and recovery from severe attack, two cases were especially notable.

W. H. and J. H., brothers, age eleven and thirteen, patients of Dr. J. C. Hubbard, of Holyoke, were attacked Oct. 12 and 13, 1907, respectively.

The duration of the acute attack was three weeks in each case, that of W. H. being moderate and that of J. H. severe. The latter had a temperature of 103° F. for a week, vomiting for several days and severe coma for two weeks, with marked retraction of head. The distribution of his paralysis at its worst was both thighs, left leg, left arm and left forearm and lower back. The arm and back recovered in one month.

The distribution of W. H.'s paralysis was left thigh and left leg.

The treatment was the same in both cases and consisted of massage and tabetic exercises begun in November, 1907, after the acute onset.

Both patients were in bed three weeks and had to be carried for two months and then walked with a limp, the lameness being very marked in the case of J. H. during the first year. Massage was given every night for two years. The greatest gain occurred during the second year and practical recovery occurred during the third year.

An examination in May, 1911, showed no paralysis in either case. W. H. had $\frac{1}{8}$ in. atrophy of left calf and $\frac{1}{2}$ in. of left thigh. J. H. had $\frac{1}{8}$ in. atrophy of right calf and no atrophy of the thigh or arm.

Very little can be said as to the effect of treatment. Massage, carried out more or less irregularly in most cases, was the most common procedure, being used in 36 of the recovered cases and alone in 25, with exercises in 5, and with baths, hot and cold, in 4. Electricity was used alone in 1 case, and with massage in 5 cases. Drugs alone were used in 12 cases, the most commonly used being strychnia and K. I. There was no treatment in 5 cases. The cases in which there was no treatment, or in which drugs alone were used, were, as a rule, those which recovered early and which did not, therefore, need other treatment.

The following conclusions seem justified:

In anterior poliomyelitis complete recovery or functional recovery occurs in something over 25% of cases examined at the end of four years. Atrophy may exist without impairment of function. In about half of the recovered cases, the onset was mild. The distribution of the paralysis in such recovered cases was not essentially different from that in cases which do not recover. Recovery in many instances required months, and in several cases from one to three years.