

the same time regular pelvic lavage until infection is gone. This involves considerable trouble and expense, and many patients either will not or cannot carry it out, but it certainly would avoid later trouble in many, if not most patients.

The routine treatment in case of bladder stones is simpler but even more important. It varies in minor details with different patients, but the essential thing is regular frequent bladder washes. There are few patients who cannot be taught to catheterize themselves, and where they actually cannot do it, there is generally some other member of the family who can. The irrigation itself is the main thing, but in some cases where incrustations readily take place, $\frac{1}{2}\%$ to 1% acetic acid is valuable in loosening these fragments. Occasionally, if gomenol is left in the bladder after the catheter is withdrawn, it helps irritation very much. If that is not necessary, an ounce of saturated boric acid solution makes a good residual for the bladder. One patient, who is now carrying out this routine, plus calcium lactate by mouth, has now gone longer without stone formation in his bladder than he has gone for eight operations heretofore. (He has recently come to measure time by his litholapaxies, as he has had nine in the last fifteen or twenty years.) Even if a small stone forms under this régime, it can almost always be removed through the operating cystoscope before it gets to the size where litholapaxy is necessary. This routine, if faithfully carried out, will prevent recurrence even where there are factors, such as a diverticulum or persistent residual, which almost inevitably tend to the reformation of stone, and I think recurrent vesical stones ought to be a rarity instead of a common occurrence.

Compared with repeated operations, the above outline is little trouble, and patients tend to get careless as time goes on, but where there is some condition of the bladder just mentioned, it must be urged on the patient that "eternal vigilance is the price of safety."

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A CANCER QUESTION: R. S. V. P.

By S. W. LITTLE, M.D., ROCHESTER, N. Y.

THE overwhelming weight of the best medical opinion is that, in its beginnings, cancer is a purely local disorder and therefore that cancer may be, can be, and is cured by the early complete removal of the pathological new growth called cancer. The conclusion is inevitable, if the premise is correct.

Medical men are unanimously of the opinion that sooner or later cancer becomes a fatal systemic disease if allowed to run its natural course. The prevailing opinion is that the disease spreads throughout the body from what was at first a purely local and microscopically small beginning. Not that the whole body becomes a cancer, though there may be here or there actual new cancers derived from the original cancer; but that something or other derived in the first instance from the original cancer invades the whole organism and eventually kills it. In other words, it is not the new growth itself which is the fatal disease, but the new growth contains, or generates within itself, the fatal disease which we call cancer. Furthermore, it, the new growth, must include within itself from the very beginning, the essence of the disease, or at least the power to develop the fatal and diffusible essence,—always; because, undisturbed, the fatal disease is always in evidence. We have a name for the picture presented by a patient after his cancer has ceased to be a purely local disorder and has sent throughout his body the death-dealing essence of cancer:—we call it "cachexia," which means "a depraved condition or habit of the body or nutrition," and in the case of cancer, it also means that we do not know exactly how the "cachexia" came about. Obviously, it is unreasonable to hope for a cure (after a cancer patient has developed cachexia) by total removal of one or all the cancers he may have,—the disease is systemic and hopeless.

I have said that the new growth itself is not the fatal thing. Yet, in itself, it sometimes is fatal. It may be located where it may kill mechanically, by pressure upon neighboring tissues: it may ulcerate and destroy the walls of neighboring blood vessels, causing the patient to bleed to death. But such deaths are not, strictly speaking, deaths from the disease, cancer, as such; the same sort of death results as an occasional incident in the course of disorders

other than cancer. Any foreign body serves as well as a cancer to kill by mechanical pressure upon a vital organ; one can bleed to death as easily from an ulcerating fibroid as from an ulcerating cancer.

The usual death of a cancer patient is not from the new growth itself but from the fatal thing which medical opinion in general claims is inherent in the new growth, and becomes disseminated throughout the body. The cancer patient dies "cachectic." His cancer may be rather insignificant in size, it may not be ulcerating, there may be no other demonstrable "metastatic" cancers in his body; and yet he becomes cachectic and dies. Another patient may have an enormous fatty tumor, or an enormous fibroid growth; but he does not become cachectic, nor does he die, until the natural times come. A woman may have a foul-smelling, ulcerating cancer of the breast; if so, she is also cachectic and soon dies. Another woman may have just as foully-smelling an ulcer of the leg and live out her natural life. A patient of the writer's had a nasty, foul-smelling discharge from a large ulcer of the back, over the sacrum, from 1865 until 1913, but was otherwise in good health. In 1913, a cancer developed at the site of the ulcer. The ulceration and the odor of the discharge therefrom, were neither improved nor made worse, but the patient soon developed "cachexia," and died. At no time was his cancer impressive, by reason of size, position, pain, discomfort, or ulceration; it neither pressed upon any vital structure nor did it bleed. It was impressive because it was a cancer. The condition was discovered by accident in the course of a medical examination for another purpose. The man absolutely declined operation on the ground that he had "lived with it for about 50 years," and that "it wasn't any worse now than it had ever been." I cite this case merely as a good example of the fact that the new growth which we call cancer is not often itself the fatal element in the disease which we also call cancer, though the new growth, however insignificant-looking, is the certain sign that the patient carries in his body the fatal disease. As already stated, the overwhelming weight of medical opinion is to the effect that the new growth itself is, or contains within itself, all there is to the disease called cancer, at the beginning of that disease. Later, all agree that the disease becomes, not a local disorder, but a fatal systemic disorder

affecting all tissues in the body. The new growth itself never originates in any but epithelial tissues and, with the possible rare exception of bone, never metastasizes in other tissue nor appears in other tissue except by direct extension of the growth, and yet the disease cancer ultimately affects all body tissues—cachexia. It is very important to bear in mind that the new growth cancer and the disease cancer are not one and the same thing, though, at first, the disease may be inherent only in the new growth, as medical authority claims.

As to just when, in a given case, the disease ceases to be local and becomes systemic, medical authority is silent; but all agree that in the majority of cases it is a matter of but a few months, at the most, after the new growth can be detected. Hence the urgency of the earliest possible removal of a cancer, if we are to "cure" cancer.

Such, in brief, is the position of medical authority in the matter of cancer, and such has been its position for at least thirty years. Medical practice based upon this position shows results of the reverse of encouraging. It would appear indeed, that the more we remove cancers and the earlier we remove them, the greater the cancer death rate (see, for example, *BOSTON MEDICAL AND SURGICAL JOURNAL*, March 13, 1919). The medical profession well knows how matters stand but, undaunted and with honest altruism, keeps doggedly at it. Failure is explained by two undoubted facts: patients, through ignorance or fear, do not go to physicians early enough; very many well-meaning physicians temporize when patients with suspicious "lumps" do consult them. As a result, the average cancer patient comes to the surgeon months after his cancer has become more than a removable local condition.

For the past eight or ten years, the leaders of the medical profession have been making a systematic concerted effort to educate their fellow-practitioners and the public, so that there will be far less delay between the beginning of a cancer and the beginning of an operation for its removal. Time and money are freely given to this end and much is hoped for this intensive educational effort. The greatest single agency at work is the American Society for the Control of Cancer, which has accomplished very notable things already,—not in controlling cancer, but in obtaining and disseminating im-

portant facts concerning cancer, with the ultimate end in view of actually controlling the scourge. The writer, though a member of this Society and feeling honored thereby, does not agree to all the official statements put forth by the Society, and it should be clearly understood that he is writing as an individual and expressing his individual opinions in this paper whether or not they agree with the official opinions or the Society.

What are the reasons for believing that in the beginning cancer is a local disorder, curable by total removal of the pathological new growth called cancer? I honestly ask this question in order, as the French say, "to know," because I do not know. The reasons which I have been able to secure thus far seem to me altogether unconvincing, and there are but two which call for any comment: First, the earlier we operate, the more cases we cure; second, at first there is but one known and invariable manifestation of the disease anywhere in the body,—the new growth itself. (The second reason, of course, was the original reason for operating at all; at the present time, one is apt to get the reasons in the order stated.) There is a "reason" which, I suspect, is the real one, though I cannot be sure, because it is never mentioned, being so absurd that one would naturally decline to give it as his reason,—"I was taught to believe it in the Medical School and have persisted unthinkingly in the belief, because it has been the teaching and belief of practically all medical leaders from that time to the present." The presumption is strong that the leaders have some good reason for their belief, and to that extent the profession at large is justified in following the leader; but if the leaders have no satisfactory reason or do not choose to divulge it, one is equally justified in not following the leader; and he is lacking in self-respect if he follows when he has what seem to him most excellent reasons for not following, particularly when his own argument remains unrefuted. Medical authority is, in general, honest, worthy, altruistic, and tenacious of a long-unchallenged dictum. Medical authority is apt to be right, but is occasionally wrong. Even when wrong, it has been known to teach and defend the wrong until forced by circumstances (not by logic) to reverse its position. Smallpox and yellow fever will serve as instances of this last statement. Nevertheless, as stated, the presumption is that in medical matters the posi-

tion taken by an overwhelming majority of medical leaders is apt to be the correct position. In all sincerity, I ask what reason there is for believing that, in its beginning, cancer is a purely local disease, curable by the total removal of the incipient pathological new growth known as cancer.

"The earlier we operate, the more cases we cure." The assumption is that if we could only operate early enough and on enough cases, we should have control of the cancer situation and bring the cancer death rate to a point where we could view it with some pride. Whether upon this slender ground or upon some sure ground known only to itself, medical authority states as a fact what has just been called an assumption. The American Society for the Control of Cancer, in one of its official publications, says: "Cancer—always starts as a local growth. Hence it can always be cured by removal, if discovered and treated early enough." (The "treatment" being, of course, removal of the local growth.) Simply the bald statement, "Cancer always starts as a local growth." If this read, "A cancer, etc.," it would be manifestly true, though slightly platitudinous, as though one should solemnly announce that "a tree always starts as a local growth." But plainly, this authority agrees with the others in the belief that Cancer and a cancer are always, somehow, wrapped up together in the same small package for a short, but unknown, time. "Hence it (cancer) can always be cured by removal (of the local growth), if discovered and treated early enough." From this, it follows that medical authority, while frankly admitting ignorance of the cause of cancer, knows where it may always be found, namely, in a beginning cancer; and knows that it cannot be found anywhere else in the body at this stage of the disease. Otherwise, it could not be stated as a fact that sufficiently early removal of the pathological new growth would always cure cancer, for it would be absurd to claim a cure if the unknown cause of the new growth were not removed with it. The obvious place, then, to seek the cause of cancer is where it is always present,—in a beginning cancer; that is, if one believes that complete early removal of a cancer always cures cancer. No one claims that complete removal of a corn cures anything save the discomfort caused by that particular corn, because removal of the corn does not remove the cause of the

corn. But medical authority says that early removal of cancer *cures* cancer always, if the removal is done completely and sufficiently early. How rarely we succeed in complete and sufficiently early removal!

It should be understood, furthermore, that the word "cure" as applied by medical men to cancer, has a unique and variable meaning. It does not mean now what it did some years ago, and it may change again in a few years. At present, a patient is officially "cured" of cancer if, for five years continuously, after having had his cancerous growth removed, he lives without the appearance anywhere in his body of another cancerous growth detectable by medical men. Some years ago, the time limit was three years. The rule applies alike to all cases of cancer, both to those "cured" of the purely localized disease and to those "cured" of the systemic disease. There certainly are more such cures the earlier in the disease the cure is attempted and the chance of cure rapidly lessens, the later in the course of the disease it is attempted. Except in a few instances, the chance of a cure is *nil* after the disease has been in progress for, say, a year.

The fact of more such cures from early than from late operation is, of course, no proof of a purely local nature of cancer in its early stages. It might just as well serve as proof that cancer is always a systemic disease by saying that early removal of a cancer is less likely to be followed by the appearance of another cancer within five years than late removal, because the systemic disease which caused the cancer to appear is at first not well enough established to produce another cancer easily or quickly, while later, when the disease is well established, another cancer can be easily and quickly produced. The one argument is as good as the other.

But how early must one remove a cancer in order to be able to assure the patient that even this five-year cure is certain? There must be some early period when such assurance can be given if cancer is "always at first a local disease." Up to date, no honest surgeon has been able to operate on a cancer patient early enough to be able to say to him, "You are cured of cancer." Yet, every surgeon with much experience has certainly removed *in toto* very small cancers within a few weeks of their reaching a size large enough to be seen, or even before they are visible as cancers with-

out the aid of a microscope. Reference is made to skin cancers, which are frequently detected and removed at a very early period; and to insignificant looking little spots which, excised as "precancerous," prove, when examined microscopically, to be actually cancers at a very early stage. Even in such a case, it would be a rash surgeon who would say to his patient, "You are cured of cancer"; or "you will not have another cancer for at least five years." In the first place, the surgeon could not be sure that somewhere out of sight there was not already, at the time of operation, a beginning cancer other than the one removed; in the second place, and more to the point, such minute cancers have been thus promptly removed and followed soon by the appearance of another cancer in the immediate neighborhood. The writer has had just that experience. The customary official explanation of such an occurrence is that the original cancer was not completely removed. In the writer's case, if he did not completely remove that cancer, he never completely removed any cancer, nor could he ever completely remove any cancer. Yet a few (very few) of his attempts at total removal of cancers have been followed by official cures; one, cancer of the uterus (microscopic diagnosis) is still alive and cancerless, after 20 years. How early must one remove a cancer in order to say to his patient, "You are cured of cancer"? What prospect is there of ever removing a cancer early enough to say that? I am not here opposing the early removal of cancers; far from it! I am opposing the argument that, because early removal gives better results than later removal, cancer is at first a purely local disease. It does not follow. Also, incidentally, I do not approve the idea of educating the public to believe that "cancer always starts as a local growth," and that cancer "can always be cured by removal, if discovered and treated early enough." The one statement I consider unproven, and the other misleading, even granting it to be true, because the natural inference is that cancer *can* be discovered and treated early enough to effect a cure, whereas no surgeon, so far as I know, is willing to guarantee a cure, no matter how early he makes the removal. Nor does any man know at what time a given case of cancer, granting that at first it is a local disease, may become a systemic disease. I strongly object to the teaching of partial truths; or of the

whole truth in such a way as inevitably to give wrong impressions. It is particularly risky when the teaching is forced upon the public and when the subject is a medical one. If, and when, the pupil finds out that he has received such teaching, he forever thereafter loses confidence in the teacher.

"At first, there is but one known and invariable manifestation of the disease anywhere in the body,—the new growth itself." That is no reason for claiming that the new growth is itself, at first, all there is to the disease. It may be, but the above quotation is no proof of it. If it were competent proof, then it would have been logical a few years ago to claim that, at first, syphilis is a purely local disease, surely curable by the prompt and complete removal of the chancre. (That logic has, in the past, been put into practice as regards syphilis, and, on the five-year basis, would at any time past or present, compare favorably with cancer in "cures".) Assuming it to be possible, would anyone claim that early removal of the sclerotic parts of the arteries would cure arteriosclerosis, on the ground that at first the disease is localized in the sclerotic tissue thus removed?

The truth of the matter is that we have been and are putting too great a burden upon the pathologists. When we say that at first the new growth is all there is to cancer, we mean that it is the only evidence which will satisfy the pathologist that cancer is present, and early in the disease it is the sole constant pathological condition of any kind which the pathologist has ever been able to demonstrate. It is barely possible that there are, from the very beginning, some constant pathological conditions, aside from the new growth, which the pathologists have not yet found. It is not beyond possibility that such exist before the new growth appears and are essential to its appearance! Is it inconceivable that the disease, cancer, begins before there is a cancer? Arteriosclerosis begins long before the arteries are demonstrably "hardened." Certain common types of Bright's disease begin long before we can demonstrate pathological changes in the kidneys. Moreover, pathological body tissue is never a disease; it is a sign or indication that there has been some abnormal happening antedating and causing the tissue to become what we call pathological. All agree that there must be some such happening antedating and causing the pathological tissue growth called

cancer, or, more correctly, a cancer. Pathological tissue cannot be at once cause and effect; nor can it be at the same time a disease, all the symptoms thereof, and all the pathological changes induced thereby. Yet, at the start, cancer, the disease, and cancer, the pathological new growth, are one and the same thing; or at least, the new growth, while not itself the disease, contains within itself all there is of the disease; because "early removal (of the new growth) cures the disease." No disease is cured by removal of the disease, unless the whole disease is removed. Therefore, if total early removal of a cancer cures cancer, the meaning can be no less than this: at the first, a cancer is or contains within itself all of the disease known as cancer.

In medical matters we properly accept as true what the laboratory workers demonstrate to be true; but we have a bad habit of declining to accept as true anything which the laboratory men cannot demonstrate to be true and which they have not, or cannot, or will not, demonstrate to be false. Scientific medicine seems to forget that there are competent ways of proving a truth other than the laboratory way, and is actually, at times, color-blind to any light other than that coming from the laboratory. Even when the truth has been demonstrated, scientific medicine is apt to remain, not only blind, but deaf and dumb, unless and until the truth is demonstrated in the laboratory way. In at least one modern instance, we medical men, besides being deaf, dumb and blind, were incredibly stupid and obstinate. We declined to accept as proven a thing which for twenty years had been a beautifully demonstrated truth, merely because it had not been demonstrated in our own particular way and because it was against the "overwhelming weight of medical authority." We declined to accept, as proven, this truth, even when our own position had been proven wrong by medical authority itself. Before accepting this truth, we insisted upon proving it in our own way. We did so prove it, incidentally killing Dr. Lazear in the process. But we proved it, and now medical authority sanctions the swatting of a certain kind of mosquito, and agrees that "the female of the species is more deadly than the male!" Is stupidity too strong a word? "Sanitation in Panama," by General Gorgas, is delightful reading, and its author was a big enough man to appreciate the

situation, to acknowledge freely that he had been utterly wrong, and to give credit where credit had been long overdue,—to Dr. Carlos Finlay. For more than twenty years, Dr. Finlay had struggled in vain to induce medical authority to accept as true the conclusion of a perfect bit of logic. Yet not long ago I was curtly informed by a very distinguished pathologist and laboratory worker of international reputation that, “you can’t prove these things by logic.” I accept, confidently, the laboratory findings of this pathologist as I accept the findings of equally qualified experts in other fields; but I accept the conclusion of a perfect syllogism with more confidence than I accept the findings of any expert. We are putting too great a burden upon the pathologists.

The medical authority just referred to (and he is rightly esteemed as an authority) tells me that “the facts at my disposal point to the conclusion that cancer is at first a local disease.” This quotation taken with the one given above (in full: “You can’t prove these things by logic, you must have facts of observation”) show well enough the mental attitude of modern scientific medicine. The same attitude is shown in a very recent letter to me from an officer of the American Society for the Control of Cancer: “Until we find something that is definitely better (than surgical removal) and proven so by *exact statistics running over a period of years*, we must continue, etc.” (italics mine). That is, it will not serve to prove that surgical methods are futile, nor will it serve to prove in any other way than by actual physical demonstration over a period of years that another method is better. How, may I ask, is such a demonstration ever to be made in the face of opposition by the overwhelming weight of medical authority? This very Society urges, among other things, the avoidance of trying to cure cancer by any other method than the one advocated by medical authority. Particularly is the public warned against trying other methods. The particular facts which alone will serve are made difficult to obtain by the very people who are most anxious to get them and are honestly trying to learn the whole truth! “You can’t prove these things by logic, you must have facts of observation,” but the desired facts must be of a particular kind. Facts proving, or tending to prove, that medical authority is wrong have little or no effect, though

facts proving, or tending to prove, medical authority right are counted as worthy; in order to prove medical authority to be in the wrong, one must present “facts of observation” “running over a series of years,” which prove, not that medical authority is wrong, but that something else is right, facts which medical authority makes it very difficult to secure. Moreover, medical authority simply ignores even the sort of facts it demands, unless and until they are numerically impressive. Before abandoning the belief that cancer is at the start always a local disease, medical authority demands that the results of treatment based upon the belief that cancer is not, at the start, always a local disease, be produced and that these results be numerically impressive and that they be *better* than present results! “Until we find something that is definitely better, and proven so by statistics running over a series of years, we must continue” (in our present way).

The facts at the writer’s disposal point to the conclusion that cancer is never at any time a local disease. None of his published articles on this matter have been refuted, either publicly or in personal communications. The nearest approach to refutation has been simply the assertion, “You are wrong,” without saying why or where; and this much only twice. Naturally I am not convinced, though I am so open to conviction that, in this paper, I have changed my tactics. Instead of setting forth the argument in favor of believing cancer to be always a constitutional disease, I choose to attack the position of those who believe cancer to be, at the start, always a local disease, in the hope of bringing forth whatever reason there may be for the belief. The village militia on parade does not inspire the regular army to come and look; but if the village militia attacks the regular army; the army, if only for its own comfort, details a few men to put an end to the annoyance, provided the army has any ammunition.

This is no personal matter. It is a matter of the utmost importance and is fundamental. If cancer is never a local disease, the sooner that fact is appreciated the better; medical authority states flatly that cancer is always a local disease at the start. On what grounds does that statement rest?

After writing this article, I discovered that I had made a great blunder—maybe. And in

the very first sentence, too. In the matter of the constitutionality of cancer, I thought I knew exactly where medical authority stood—still! I meekly acknowledge that I do not know, nor am I sure whether medical authority knows.

In preparing this article I had glanced over the official literature of the American Society for the control of Cancer as one skims through an old, oft-read novel. Later, I read this literature through carefully. If I have blundered, the following quotations from said literature do not excuse the blunder, but they do justify me in saying that now I do not know where medical authority stands in this matter. I quote at random from many similar passages:

"Cancer at First a Local Disease." (Head-
ing to a section.)

"Cancer is not a constitutional disease."
(No qualification.)

"Cancer is curable because it is at first a
local disease, and not a constitutional or blood
disease."

"— the extension of the disease by second-
ary growths in other parts of the body leads to
the common but erroneous belief that cancer
is a constitutional or blood disease"; and in
the next sentence,

"It is apparent that cancer when it first be-
gins is a *purely local growth*."

"Cancer is not a blood disease," but always
starts as a local growth. Hence it can always
be cured by removal if discovered and treated
early enough." (Glorious news!)

"If neglected, the disease may spread
through the body until it is incurable." (Ital-
ics mine.)

"By skilled treatment of these precancerous
lesions, it is possible to prevent the beginning
of cancer."

"Physicians cannot, by any means, control
the incidence of cancer." (Slight discrepancy
with preceding.)

There are many other similar statements.
Nowhere can I find an unequivocal statement
to the effect that cancer, from beginning to
end, is never a constitutional disease, but is
always confined to the pathological new growth,
whether that new growth is localized in one
spot or in several spots in various parts of the
body. It is true that the flat statement, "Can-
cer is not a constitutional disease," often ap-
pears, but usually followed by a statement to
the effect that, "Cancer, being *at first*, a purely

local disease, etc." And throughout, tremen-
dous emphasis is placed upon the curability
of cancer because, "*at first*," the disease is lo-
calized in the new growth itself. This seems
superfluous if cancer is never at any stage a
constitutional disease, but is always localized
in the new growth. In that case, one would
naturally urge early operation, not because
then the disease is not constitutional, but be-
cause *then*, and then only, is the disease local-
ized in a very small and often removable part
of the body. It does not need an acute in-
tellect to appreciate that cancer is, *at first*,
not a constitutional disease, if one knows that
cancer is never, at any stage, a constitutional
disease.

I do not know where medical authority stands
in the matter, except that it is perfectly clear
that medical authority states as a fact, "At
first, the disease is not a constitutional dis-
ease, but is a purely local growth," or words
to that effect. Therefore, my question is perti-
nent, blunder or no blunder. I would ask a
really difficult question if I could catch medi-
cal authority stating as a fact, without offering
convincing evidence of its being a fact, "Can-
cer is never, from beginning to end, a consti-
tutional disease, but is always localized in the
pathological new growth called cancer, whether
that new growth be small or large, single or
multiple, confined to one part of the body or
scattered here and there in various parts of
the body. The disease, cancer, does not ex-
ist anywhere in the body outside the pathologi-
cal new growth known as cancer."

SYMPTOMS AND TREATMENT OF ACUTE CARDIAC FAILURE. REPORT OF A CASE.*

BY THOMAS J. O'BRIEN, M.D., BOSTON.

[From Heart Service of the Boston City Hospital.]

As physicians, we are vitally interested in the
true condition of the heart of each patient, and
its status, whether normal or abnormal, influ-
ences our diagnosis, prognosis and treatment,
especially in fields of surgery, obstetrics and
medicine.

Our ideas of heart failure, whether gradual
or sudden; of valvular defects; of "over-load,
etc., have changed completely in the past few

* Read before a meeting of the Faculty and students of Boston
University School of Medicine, at Evans Memorial Hall, January
12, 1921.