

Indeed, unless we free up nasal or throat obstructions in many such instances through proper septal operations, or the removal of adenoids, or enlarged, chronically diseased tonsils, we shall fail signally to benefit or relieve the consequent digestive disorders. The two conditions of inflamed throat and chronic dyspepsia may march together, and as one organ or condition improves so will the other. If, likewise, one organ grows worse, so will the other. It is, however, difficult or impossible invariably to discover through symptoms and the patient's history in which organ the trouble started. Therapeutically we must make use of our brains first of all and act intelligently according to the case we have in hand. If there be evident faulty conditions in the nose or naso-pharynx, these should often be corrected as far as may be by local applications or operatory procedures. At the same time, the habits should be regulated and the diet made simple, nutritious and moderate.

Nervous, run-down women of middle age, who suffer also from menstrual difficulty, are apt to have atrophic nasal catarrh. A wisely adopted rest cure and the continuous use of the glycerophosphates of lime and soda will prove helpful. To club men who are bloated, red, corpulent, and also suffer from a thickened engorged mucous lining of nose and throat, low diet, abandoning the use of alcohol and free diuresis through Poland water or Celestins Vichy, will prove useful. The presence of incipient or more advanced cirrhosis of liver and venous engorgement of the entire upper air tract among these men is also what we encounter time and again. It is clear from the foregoing how essential it is for throat specialism which is broad, conscientious and useful to be guided and directed many times by a knowledge of general medicine. This statement does not prevent my recognition of the great advantages derived directly many times from the rhinoscope and laryngoscope in skilled hands. It is against their abuse that I and others cry a halt.

#### ROUTINE TREATMENT IN A GENITO-URINARY CLINIC; FUNCTIONS OF SUCH A CLINIC.

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THE study of records which forms the basis of this paper was undertaken for the writers' private information, with the added hope that we might extract something that would help in treatment. In the end, however, it is published, not because anything of especial technical value has been found, but because the study has raised broader questions as to the functions and use of a clinic of this class which seem worth discussing.

The paper is, therefore, presented in two parts, on the one hand the technical data, on the other the discussion of these broader problems.

#### PART I.

In the mere impressions left with us by routine medical work there is always a large element of error. To check this in regard to this particular clinic the writers have looked up the records of part of their last service, covering August and September, 1902, in the Genito-Urinary Department of the Boston Dispensary.

This clinic is a large one and seems to enjoy the confidence of the afflicted throughout and beyond the South End. The year's average of new cases is, roughly, 2,000. The daily total of all old and new cases varies from 15 to 50. For this paper 328 case records were worked over.

The diagnoses recorded were as follows:

Chancres or early syphilis . . . . .	13
Chancroids . . . . .	27
(with bubo) . . . . .	2
Bubo (alone) . . . . .	1
Acute gonorrhea . . . . .	130
Chronic gonorrhea, anterior . . . . .	48
Chronic gonorrhea, anterior and posterior . . . . .	26
Chronic prostate and vesicular disease . . . . .	11
Follicular or periurethral infection . . . . .	3
Epididymitis (alone or without urethral dis'ge) . . . . .	4
Gonorrheal rheumatism . . . . .	2
Stricture . . . . .	13
Balanitis . . . . .	5
Venereal warts . . . . .	6
Torn frenum . . . . .	1

#### Non-Venereal.

Hydrocele . . . . .	6
Varicocele . . . . .	2
Senile prostate . . . . .	7
Retention from spasm . . . . .	1
Irritable prostate . . . . .	2
Impotence . . . . .	1
Neurasthenia (sexual) . . . . .	7
Hematuria . . . . .	1
Paraphimosis . . . . .	1
Edema of prepuce (no known cause) . . . . .	1
Induration of corpora cavernosa . . . . .	1
Eczema of scrotum . . . . .	2
Scabies . . . . .	1
Pediculi pubis . . . . .	1
Genito-urinary tuberculosis . . . . .	2

The relatively small number of syphilitics is in part explained by the fact that all definitely diagnosed syphilis at the dispensary is referred to the Skin Room.

#### TREATMENT.

*Chancres* were treated expectantly with washes and powders until such time as the diagnosis could be confirmed — then transferred.

*Chancroids* were usually disinfected so far as possible by the use of strong carbolic acid, followed by alcohol. With this (and sometimes as sole treatment) frequent cleansing at home with creolin or other washes, and the application of boric acid or other non-cohering powder, formed the routine. In the period covered there chanced to be no circumcisions for chancroids — splitting up the dorsum for chancroids with phimosis was done in one case only.

*Buboes* were always treated by simple drainage without very free opening or dissection. Abortive treatment was not tried, as we had only broken-down and "ripe" buboes to treat, and

were fortunate enough to have none form from chaneroids under treatment.

*Gonorrhea* in hyperacute cases was treated in the beginning with internal medication, — co-paiba or santal with diuretics and alkalines, — under the usual rules of relative rest and hygiene. In all other acute cases where it was possible, copious and frequent irrigations, with hot permanganate solutions or with weak silver nitrate or weak corrosive solutions, were used. In selected cases, especially when seen early in their course, definite attempt at bactericidal treatment was added to the above routine.

In cases with a developed acute posterior urethritis, the general trend of treatment was conservative. Treatment of the anterior disease was continued, and every two or three days in quieter cases a posterior (Diday) irrigation added.

In the later stage of anterior disease astringent injections, medications through the endoscope and mechanical dilation (Kollmann dilators usually) were the means most used.

Late stages of posterior infection were combatted with strong instillations with the Ultzmann deep syringe, and prostatic massage was occasionally used.

Home treatment with injections was not advised or prescribed in any stage of the disease.

As to the complications. No cases of suppurative prostatitis were met in this service. There were but three cases of follicular or periurethral abscess — one lost track of, two sent to hospitals for operation. There were but two cases of true cystitis secondary to gonorrhea — both were treated with bladder irrigations.

*Epididymitis* was treated by suspensory, relative rest and hot fomentations or poultices in the acute stage; later with suspensory and with nitrate paintings, or, more often, ointment of mercury and belladonna.

Of the late sequelae the *chronic prostatic* conditions (including many of those often classed as vesiculitis, neurasthenia, etc.) were treated by urethral dilatation, topical applications to the deep urethra and prostatic stripping by rectum — usually with good, if not permanent, results.

*Strictures* were treated by gradual dilatation — successfully in all of our series but one, which was referred to hospital for operation.

*Veneral warts* were treated by snipping off and touching up the base with chromic, nitric or acetic acid.

*Balanitis* was satisfactorily treated by the usual means of surgical cleanliness.

The few cases of senile prostatic disease were treated for the complicating cystitis, one had had a prostatectomy performed; others were advised to submit to operation, but none of those in this series accepted this advice.

#### RESULTS.

As to the results of treatment, we may preface by saying that these probably represent good average results, certainly no worse than aver-

age for this or other clinics of this class. Certainly in this clinic within the past few years, with graduate assistants replacing undergraduates, there has been a marked improvement in the detail work and apparently in the results. Accordingly, though it was obvious that some patients were attending too irregularly to get much benefit of treatment, yet we were not prepared for so poor a showing as to attendance and finished results. So far as we know or can judge, the attendance, or lack of it, would be much the same for other months of service.

The net data are as follows:

As to syphilis there are no data beyond those of diagnosis and transfer.

Of 29 chaneroids, 11 were discharged cured or practically healed; 10 disappeared improved but not healed; 5 disappeared after only one or two visits; 4 disappeared early, unimproved; 2 were sent to institutions; 2 were doing badly when last seen. Two cases had buboes when first seen and there was one bubo with a healed chaneroid. No buboes developed under treatment.

Of the acute gonorrheas, 20 were cured in four to twelve weeks; 30 quit uncured after some treatment; 80 did not return at all after one or two visits.

Of the chronic anterior gonorrheas, 22 were discharged cured; 11 were uncured at the time of the last entry.

Of the chronic posterior and anterior infections, 7 were cured, 9 were not. Fifteen others came but once or twice.

Of the chronic prostate and vesicle cases (including post-infective infiltrated prostate with vesicles obstructed but not infected), there were 11 in all. All were temporarily relieved, though none were discharged as cured.

Of the strictures one was sent to the hospital for operation, the rest were effectively treated by gradual dilatation.

#### METHODS.

From these results it is possible to deduce relatively little as to the most useful methods. The series of chaneroids is perhaps best worth study, for a series of 29 cases of soft sores with 25 fairly well followed and without a fresh bubo is not the usual showing, nor was it previously the rule in this clinic under other older methods. We believe that the disinfection with strong carbolic acid for one minute, followed by alcohol, while it does not always cut short the infection, at least helps to disinfect, and certainly has a marked advantage in that it leaves no slough. It is to the fact that no sloughs were left, and that the patients were elaborately cautioned to remove all scabs at each of the frequent home dressings, that we would attribute the good results. It is apparently a fact here, as in general surgery, that a thoroughly drained wound however infected will rarely give serious glandular infection. Certainly this aim in treatment will bear emphasizing in relation to chaneroids and bubo formation.

As regards the treatment of the urethral infections, the moral as to methods is less simple. It is a question if the *totals* here given show anything except rather poor average results. From the study of *individual* cases and records, however, the writers are only confirmed in their conviction gained by observation in private practice, that it is desirable in all save a few very acute cases to give all acute anterior gonorrheas active local treatment with copious and frequent irrigations, combined in favorable cases with the use of protargol or other silver germicide. This seems to be the ideal treatment up to date. Later in the disease astringent irrigations, medication by the endoscope and graduated stretching have their place. Posterior infections seem to do best under not too frequent local treatment, begun only after the stormy stage is past.

On this basis of treatment we get results pretty consistently in proportion to the faithfulness, frequency and skill of the local treatment.

In past years we have all had a relatively large experience in this same clinic with the results of the usual home injections with the old-time clap syringe, using all sorts of injections, including some of the organic silver germicides. As a consequence nearly all of the surgeons have abandoned this scheme of treatment as far as possible. The average results were no better, the number of relatively serious mishaps much larger, and we did not then get the early and excellent results now not infrequent under proper care.

Properly carried out, irrigations in the hands of the physicians are much safer, and the method if persistently followed is capable of curing some early cases in two weeks or less, of greatly diminishing the frequency and severity of posterior urethral involvement and consequent complications, and of greatly promoting the comfort of the patient during treatment even where cure is not prompt. The method has no disadvantages *per se*, except the time and trouble required.

It is satisfactory, however, only when consistently carried out; on an irregular and irresponsible class of patients it does not therefore show greatly better *average* results than may be seen with average treatment — or perhaps with no treatment at all.

We see, however, no reason for dropping desirable methods because patients who do not come fail to get cured, and we are still confident that except for better technique we are not now likely to benefit by any change in routine.

## PART II.

### THE BROADER QUESTION.

The broader question for which we ask further consideration is that of the conduct of gonorrheal cases in a public clinic — the other classes of cases require no special remark.

With regard to the gonorrheal cases the real question is, not what is the best treatment, but what is the best clinic routine. We believe there is no question that active local treatment is the

ideal method, and feel sure that few of those who have thoroughly worked over the curative (as distinct from the palliative) treatment of gonorrhea will disagree with us.

Such treatment we have attempted to carry out as a clinic routine — what the results are under routine conditions we have seen. Certainly they do not show up very well, and the discrepancy between the results here and in properly handled office practice is obvious. Certainly we can hardly be satisfied with curing only one-quarter to one-third of our cases as we now do. As we have said, it does not seem wise to return to old methods — they were no better even in the general average and with much less possibility of doing good: the newer methods we are carrying out as well and as faithfully as we can. Can we do anything to change the conditions under which we work?

The problem is a rather complex one, for a clinic that treats venereal disease has various responsibilities. The ordinary out-patient clinic provides opportunities for the cure or relief of the patient, for the education of the attending surgeon, for the instruction of the student. All this the venereal clinic must do, and beside this must discharge a duty to the public in combating, so far as may be, the prevalence of venereal disease and that neglect of its treatment which so largely favors its spread. Through education of the practitioner and of the student, and by direct education of the public, this must be accomplished. Let us take up one by one these objects of our work, and it becomes clear that in no respect are we accomplishing what might be desired.

### CURE OR RELIEF OF THE PATIENT.

As things stand, a proportion of patients are rapidly and permanently cured without complications. A smaller proportion recover after some weeks as a result of our treatment — so far good; but both these classes in our list together include but 15%. What have we done for the rest? 61% we certainly did not benefit, for they came to the clinic but once or twice anyhow. The other 24% drifted off — somewhat relieved in many cases, but not cured. Undoubtedly many of these cases got well, but it is too large a stretch of optimism for us to consider ourselves responsible if they did. We are very apt, it is to be feared, to consider ourselves very useful and to give ourselves the benefit of every doubt. Would it not be fairer to say frankly that we are curing something under 20% of our gonorrheal patients and that 80% of them receive no substantial benefit from our treatment?

### EDUCATION OF PATIENTS AND THE PUBLIC.

This is most important perhaps of all our aims, save that of cure. If a patient has a broken leg it matters little what he thinks about it — he usually believes what we tell him and lets us do what we can. Not so with gonorrhea — the public is too amply misinformed. Every man has heard that it is “no worse than a cold,” and

as a rule he knows several liars who "always cure their doses right up without any trouble." If we tell him that the disease is a serious one, and that safe and effective treatment involves much trouble and may take some time, he has no notion of believing us.

Time is likely to modify his personal notion of the seriousness of his case, but he does not change his theory; he simply considers himself "a hard luck case," and blames any treatment he may casually have subjected himself to as the reason for his continued trouble, and tries something else. The old rooted idea that gonorrhea is a troublesome trifle, and serious trouble the rare exception, sticks like a burr.

Beyond this the patient may in a public clinic learn by observation that venereal disease is not always a jesting matter, and he learns that we doctors consider gonorrhea serious, possibly very serious, and not likely to be quickly cured. What he does not learn is that it is curable in most cases under proper conditions, with proper skill and care, in far less than the time usually taken. The difference in results between "santal-midi" and the average of the clinic is not obvious enough to him to outweigh his inertia.

This is not theory but fact, and humiliating as it is to admit, it must be admitted that a very large share of the popularity of our dispensary clinic is due to the fact that "Mixture XVI" is good and cheap and is dispensed only to its patrons. It is certainly a good copaiba mixture, but it has no virtues different from those that other mixtures have, and at best can only shorten an attack, and usually only masks it. But it must certainly not be seriously contended that we are having full success in educating the public so long as it uses us, with our consent, largely as a cheap and handy drug store.

#### PROTECTION OF THE PATIENT'S FAMILY AND OF THE PUBLIC.

In so far as we cure — definitely cure — our cases, we help in this direction of course. In so far as we simply palliate and diminish a discharge with copaiba or the like, we probably do more harm than good so far as the public protection is concerned. The man who transmits gonorrhea is not the man who has a florid discharge, but he with whom "it comes back when he stops taking the medicine," in short, the man who is fooling around a clinic or drug store. In so far as we make the patient comfortable and tacitly agree that he is doing very well when he is really doing very ill, we encourage indifference on his part, and endanger rather than protect the public.

#### EDUCATION OF THE PHYSICIAN OR SURGEON ATTENDING.

Such of us as have the privilege of working in a clinic of this sort year after year have an opportunity for learning to treat minor genito-urinary surgery and venereal disease that is of the greatest value. What we learn is pretty directly proportionate to our intelligence and effort. Personally we can complain in no way of the present

status except in so far as we are forced to waste time on irresponsibles.

#### EDUCATION OF THE PRACTITIONER.

It is obvious that this is very important, both in regard to the indirect education of the patients and in regard to improving the routine treatment. In this community, at least, it is apparently inevitable that gonorrhea should as a rule be treated by the general practitioner rather than the surgeon or specialist. The rôle of the latter is to run a clinic, to treat a few cases, to serve in times of trouble and consultation, and to impart what he may of knowledge acquired by special experience to his fellow practitioner.

It requires no argument to prove that the average practitioner has a somewhat scanty knowledge of the cure of venereal disease, and is over much under the influence of the older palliative methods of treatment or the spell of advertised "ethical" cures. That this may be helped is obvious, but this must be done in large part by example rather than talk. Such example is best given in the practice of public clinics. That the effect of such example is nullified by the ragged and apparently inconsistent results under present conditions is obvious. If we are going to convince others we must have not occasional but consistent good results to show.

#### EDUCATION OF STUDENTS.

The present system is gravely defective in this respect. The student has been taught in the schools as a rule a somewhat theoretical and inco-ordinate idea of the pathology and treatment of gonorrhea. The textbooks are, with few exceptions, full of the history and natural history of genito-urinary disease, and hopelessly vague and behind the times as to actual treatment.

The student brought in actual contact with cases is naturally and logically impressed with the fact that the cases he sees under treatment are mostly doing rather badly. He must, if normally skeptical, conclude that the statements given as to the better results of better conditions are rather likely to be rose-tinted. So far as can be judged, the average student who has had clinical instruction in genito-urinary work usually learns to do irrigations rather inefficiently, while he not infrequently acquires a profound distrust of their efficiency, or of the use of any local treatment.

Having been a layman before he was a student, he usually knows that the drug-store type of treatment is the one under which most of those infected do well or ill, and against a return to it in his practice he has to balance only an assurance on our part of the better results of a better method which we demonstrate, but the actual results of which he has seldom, if ever, seen.

This running survey will perhaps illustrate our meaning when we say that the present routine fulfills none of its functions to any satisfactory extent, except in so far as it offers opportunity to the surgeon in charge to learn his work.

Self-deception is very easy, and no doubt we all feel that we are doing a vast deal of good to such cases in our clinics, but on closer inspection is it so? It seems to us doubtful to say the least.

It does not seem in our judgment that we can accomplish more by any change from the present general routine; our change must come from a more rational attitude on the part of the patient.

More talking (telling patients what we think and believe they should do) is useless.

It may be argued that better work and better results will bring about a better attitude on the part of our clinic. To this may be answered that in the past few years there has been an improvement in the work of this clinic in all respects and an improvement in the results in patients that are attending to the business in hand, but no visible improvement in the general attitude. At best not all results can be good, and now the good results are swamped in the flood of "casuals," with whom we are temporizing.

We are, in short, temporizing and playing with a problem we should confront, with the result that we are not in any direction accomplishing what we should for the energy expended.

Our duty as medical men is to cure disease where we can, and it would be neither humane nor wise to exclude from our help those with venereal disease. However, despite the tales we hear, gonorrhea in males is very rarely acquired, save in the usual way; when the patient has so acquired it, we may be sorry for him, but it is a question if our professional duty must impel us to look to his comfort alone — to let him do as he pleases, when he pleases, and in so doing to jeopardize what power we have to improve the standard of treatment and to combat the prevalence and spread of gonorrheal disease in general.

It seems to us of first importance that we should help the patient in proportion as he will help himself, but that our larger duties should be paramount to our obligation to try to help those who care little or nothing for our help. It is far better that we should help educate the profession and the public and raise the standard of treatment in gonorrheal and venereal disease at large by limiting ourselves to conditions where we can give adequate example and instruction, than that we should confine ourselves to the vague philanthropy of doing what little we can for everybody. If we were to adopt a sort of discipline in a clinic of this sort, consent to treat only such patients as would consent to follow out directions and come back when told to, entirely discontinue the complacent ordering of copaiba mixtures and Royal P. syringes; and refuse to tolerate the man who "meant to come back earlier, but got to drinking last week" and all the other irresponsibles who fall from good but weak intentions, we should be better off.

There would be some apparent, but only apparent, hardship. Patients can always go elsewhere — even now they drift from clinic to clinic; they can always be treated somewhere as we now treat them — on their own terms.

We have rather an excess to-day of all sorts of clinics. There is no danger that the poor will be neglected if they seek aid. As to others than the poor, they do not belong in a clinic. The single man with gonorrhea whose work makes it impossible for him to attend regularly at any clinic should not in most cases be obliged to depend on a clinic for his care.

By limiting our care, then, to those who deserve it, we should inflict little or no hardship. Should we not better discharge our professional duty? Surely we could under such conditions give more and better care to the patients who did attend to business. We could do better work in observation for the benefit of ourselves and others. We should be in better position to influence the work of our brother practitioners in this line of cases, and we should be able to ensure much better work by the practitioners of the future by giving adequate and really demonstrated instruction to the student of to-day.

What has been written here is on our part a deduction from past experience in clinic work as well as from study of the data cited above. So far as possible we have given our reasons, and our conclusion, debatable of course, is here presented for discussion.

We believe that it would be for the best interests of all concerned that a special genito-urinary clinic should treat cases of gonorrhea only under such conditions as are in the surgeon's judgment consistent with proper treatment and good results. This is not to be taken in any way as a criticism of the present use of genito-urinary clinics at large, — the good done in other classes of cases more than justifies them, — it is simply our answer to the question as to the proper treatment of gonorrhea in such clinics — an expression of our conviction that some discipline and regulation is needed in such clinics if we are to make them of proper service.

#### SOME PRINCIPLES INVOLVED IN THE THERAPEUTIC APPLICATIONS OF RADIOACTIVITY.<sup>1</sup>

BY WILLIAM ROLLINS, BOSTON.

IN 1900 experiments were made on animals to determine the value of radioactivity in diagnosis and therapeutics. The results as relating to diagnosis were briefly referred to so far as they were apparent with radium 1,000 in a paper, "The Cathode Stream and X-Light," in the *American Journal of Science* for November, 1900. With the more powerful radium now available the results may be different. No report of its therapeutic uses was made at that time, but radium 1,000 was made into capsules, with non-radiable walls to limit the action to the diseased tissue. These were given to Dr. Williams, and recommended for use in treating lupus and superficial cancers. Later (1901), radium of greater strength was used. As the experiments on animals had shown radium to have a potent effect on

<sup>1</sup> This paper was submitted for publication September, 1903.