Some Notes on the treatment of GONOGOGGAL URETHRITIS in a Stationary Hospital in Franco, with special reference to the use of Intramuscular Injections of SUCCINIMIDE OF MERCURY, giving an analysis and records of the first 100, and an analysis of the first 500 cases so treated.

by

JOHN GIBSON

M.C., M.A., M.B., Ch.B., D.P.H..

ProQuest Number: 27555651

All rights reserved

INFORMATION TO ALL USERS The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 27555651

Published by ProQuest LLC (2019). Copyright of the Dissertation is held by the Author.

All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code Microform Edition © ProQuest LLC.

> ProQuest LLC. 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106 – 1346

- Foreword -

I had written up these notes and wished to put then forward for my M.D. thesis at the beginning of 1917. For this purpose it was necessary to forward them to higher authority for permission to 'publish'. On the 27/2/17 I handed the manuscript to my G.C. with a covering note asking him to forward them in accordance with D.G. No p/q/r dated x/y/z. By the 10/3/17they were once more in my hands. And with them were memos to the number of 14 in which I could trace their passage to the D.G.M.S.'s office till they finally came back to me "For necessary action in accordance with preceding minute". We were now busy preparing for the attack on Viny Ridge and so my manuscript was put aside; and now I have typed it out to put forward without the tedious necessity of censorship.

Burnley, 24/3/20.

J.G.

After the war had been in progress for some months it became expedient to consider the question of centralising the treatment of Venereal Disease contracted or developed amongst the troops after arrival in France.

For various reasons it was determined to establish a single hospital into which would be collected all cases so occurring. This was the Stationary Hospital in which the work composing this Thesis was carried out. At first cases remained temporarily here awaiting evacuation to England for treatment in special hospitals there. Very soon, however, this system was done away with, and cases were kept under treatment in France until a cure of more or less permanent nature was established, such a cure as permitted of the soldier being sent back to duty. Only chronic and intractable cases were sent to England.

As time went on and increasing numbers of our troops landed in this country, the total incidence of Venereal infection went up, and hospital accomodation necessarily increased to cope the larger numbers; so that the hospital was of very considerable size in the spring of 1915. It thus happened that an excellent opportunity was afforded of dealing with large numbers of cases and carrying out the work recorded below.

I was detailed for duty at this

hospital after landing in France on 24th April 1915, and attached to the staff till Feb. 1916. During practically the whole of this period I was treating cases of Gonorrhoea. The number of patients in my Lines varied, but the average over the whole time was above one hundred (100). I was able to carry out treatment along one or two different lines, but what I particularly wish to record is a series of cases treated by Intramuscular Injections of the SUCCINIMIDE SALT OF MERCURY. It is to be noted that the Succinimide salt was used in addition to the ordinary routine, and it will be necessary to go into this to begin with.

The hospital was in the main under canvas during my stay there, the only wooden buildings being the officers and some treatment huts. The marquees used as wards were arrang -ed in lines one or more of which was in charge of each Medical Officer. Gases on admission were passed into a Reception Tent where they were seen by the Orderly Officer and sorted out according as they were suffering from Syphilis & Soft Sore, or Gonorrhoea; having been so divided up they were passed on to the Treatment Hut of the lines in which they were to live. They were there seen by the N.G.O. in charge who filled in certain particulars on a card (see next page) before they came under the Medical Officers' care.

All cases who were fit paraded each morning from 9 o'clock onwards for Medical Officer's inspection. Cards were kept in the treatment room and arranged according to wards, A1, A2, &c. One R.A.M.C. orderly looked after two or three marquees and brought along his patients in such batches as

(2)

## THE CARD.

Each case was recorded on a card of which the following is a copy:-

## FRONT.

	No	_ STATIONARY HOSP	ITAL. X WARD.
>.	Service. Ser	vice in Country.	Religion. Occupn in civil life.
∍g.	No. Rank,	Name, Regt,	Coy. DISEASE.
2te	of admission,	Disposal.	Date of Discharge.
	57CA>	T	his space not to be written on.

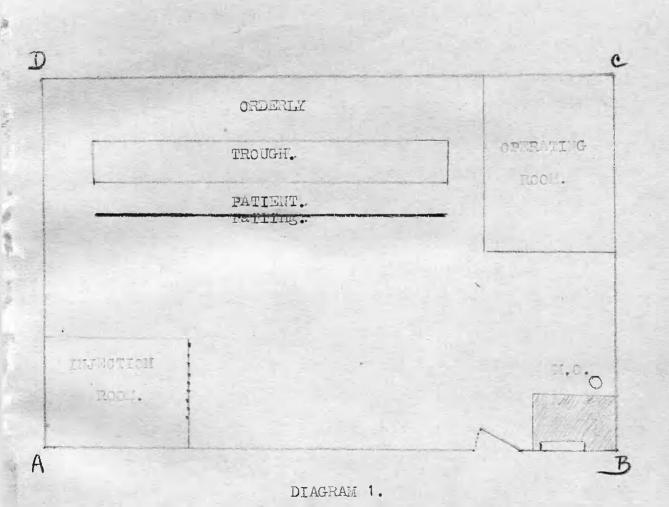
## BACK

DATE	TREATMENT.	PROGRESS.	COMPLICATIONS.

Particulars regarding the potients discase were filled in

or the Medical Officer.

PLAN OF TREATHENT HUT.

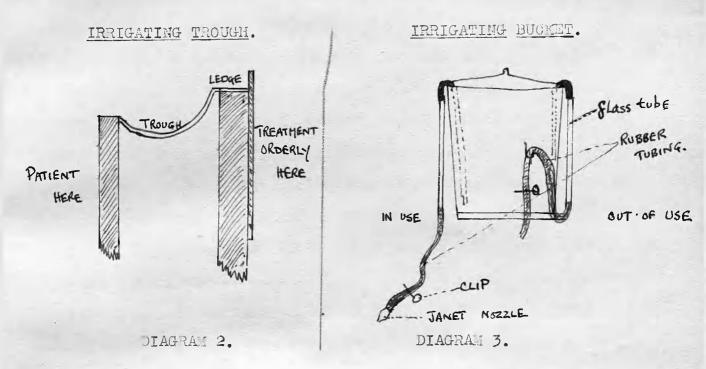


enabled the M.O. confortably to deal with them, and the treatment orderlies to go on with treatments. The inspection of an average case at this parade was only a matter of a few minutes; some took a longer some a shorter time, but as a rule they could all be seen in  $2\frac{1}{8}$  to 3 hours.

(4)

The Treatment Hut was a wooden erection some 30' by 40', ABCD of Diagram 1. At corner B was fitted a table with boxes having compartments for cards according to wards so that the card of any particular patient could be got at a moment's notice. Here sat the M.O. and the Wardmaster to whom the orderly bringing patients handed the cards of his batch. and who called out the name and passed the card to the M.O. as each patient came up. The M.O. had thus before him in convenient form an up to date record of the case. Each day or every second or third day he made a note of the exact progress of the disease and the particular treatment to be given. The corner C was boarded off to form a small operating room, big enough to hold a table, a small steriliser some shelves and stands for instruments, bowls etc. Extending almost the length of the hut from the wall of this room to the wall AD was a trough constructed of tinsupported on a wooden frame, the whole in cross section as in Diagram 2.

Running some 4' above this trough was a beam from which were suspended half a dozen enamelled buckets containing the irrigating solutions, and labelled according to the solution contained. These buckets had each a covering layer of gauze two or three ply, and a lid. From the outer margin of the lid on each side a small piece was cut out to permit of the bend of an inverted U tube of glass passing through.



One limb of this glass reached almost to the bottom of the bucket, the bend was protected by a cover of rubber tubing and the other limb was outside the bucket. (Diagram 3). From this extendedsome 4' of rubber tubing which when not in use was carried over a small bracket of wire attached to the side of the bucket. A clip was placed on the tubing within reach of the patient by means of which he could allow the lumen to open when he went to perform his treatment, and close it when he had finished. As each patient went up for his irrigation he put on a short rubber apron with a hole in the middle. He was instructed to pass water before commencing treatment. At the end of the trough were placed two busins containing spirit biniedide solution 1% and swabs, and using one of these he thoroughly cleansed the glans, corona, and meatus. He then took his place beside the bucket containing the solution he had been instructed to irrigate with, placing the lower margin of his apron just inside the trough. Trained orderlies were in charge of irrigation and paid particular attention to new cases. The object aimed at was the "grand lavage" of Janet. On the back ledge of the trough were placed six basins with Janet nozzles immersed in 1/500 Perchloride of Mercury. The patient took one of these and fitted it on to the rubber tubing extending from the bucket. He undid the clip and permitted the irrigating fluid to flow, manoeuvring to get rid of any air bubbles. Having done so he inserted the nozzle into the meatus and washed the anterior urethra by filling it with solution and emptying it half a dozen times. Next he proceeded to fill the bladder, a task requiring some practice and proving a matter of very great difficulty for some patients. I found that on an average two or three days was required before a patient could satisfactorily perform the full lavage. Each case was required to fill and empty the bladder half a dozen times and the majority of them became very proficient at this operation.

If an orderly found it difficult or impossible to fill a patient's bladder when trying to educate him to his treatment then the matter was reported to the M.O. who took charge of the case and tried to find the cause of the trouble. The most common cause of trouble was the <u>spasmodic contraction</u> <u>of the compressor urethrae</u> in more nervous subjects. Careful coaxing very often overcame this difficilty and put matters

(6)

right. By getting the patient to perform the act of micturition the compressor will often relax sufficiently to allow some solution to pass, and the muscle gradually becomes accustomed to the new sensation, finally allowing the solution to pass freely. A common reason for the spasm was the fact that the solution was too cold; this is easily remedied, though sometimes the spasm persists even when the temperature is put right. Occasionally I obtained success by pressing the rubber tubing between the finger and thunb and then releasing it, so as to permit waves of solution to pass along the urethra. The raising of the bucket a few inches was all that was required in other cases. Sometimes I overcame the resistance of a nervous compressor by filling up the bladder by injection. In an occasional very stubborn case I preceded irrigation by an injection containing 2% Cocaine Hydrochloride.

SOLUTIONS USED. (a) For irrigation. At different periods during my stay I used a variety of solutions, but in the end I came to the conclusion that as a

routine for the ordinary acute case

none of them was any improvement on Potassium Permanganate. Cases began on this at a strength of 1/9000 and according to progress were advanced to 1/4000. A stronger solution than this I never used. The solutions were made up by orderlies who had special instruction in the matter, and poured into the buckets. I found that the gauze cover retained a certain amount of particulate matter and experience had led me to believe that this had been responsible for the production of a certain

(7)

amount of urethral irritation in many cases. The temperature of the solution poured into the buckets was 110 to115 degrees Fahr. which gave a temperature of 100 to103 degrees for irrigation. I advised men irrigating to test the temperature roughly by running a little of the solution over the back of the hand.

Very commonly I followed up the Potassium Permanganate by a few days 1/8000 <u>Zinc Permanganate</u>, when there was practically no discharge. I found the use of this latter solution very satisfactory at this period, its slightly astringent quality tending to reduce the remaining congestion and hasten the erturn of the urethral lining to its normal condition.

On a few occasions as a variant or for some special reason I ordered <u>Silver Nitrate</u> 1/10,000 to 1/3000 to be used. In such a case I carefully supervised its use, and I found that there were some very good results from its administration At the same time I had occasion to observe some very bad results where this salt had been used carelessly and indiscriminately. It is a much more dangerous as it is a more powerful salt than the Potassium salt.

Another solution which I very occasionally used was <u>Protargol</u>, mainly in cases which were rather refractory, as a variant. Used in a strength of 1/4000 or rather more concentrated it certainly proved useful in a few cases. I only used it over short periods, never as a routine treatment. In some lines it was used in the latter way, but I could not see that the results were any better than those I obtained with permanganate and certainly I did see complications from its

(8)

Strate Har

prolonged use which did not arise from prolonged permanganate irrigation.

In some cases continued slight discharge does undoubtedly arise and persist from over treatment. In these I obtained marked benefit from a few days rest then a few days irrigation with <u>Zinc Sulphate 1/4000</u>, followed again by a day or two without any irrigation whatever.

Another solution I used occasionally as a variant was Oxycyanide of Mercury, 1/8000.

For a considerable period I experimented with hypertonic saline solutions of various strengths. .8; 1; 1.5; 2 per cent and upward. The general result of irrigation with the lower strengths ( up to 1.5% ) was to cause increased discharge and to keep up the purulent condition for a longer period in the average case than one had found working with other solutions. The higher strengths proved very irritant giving rise to great increase of discharge sometimes bloodstained and considerable urethral pain. I even saw in one or two exceptionally severe cases a few drops of blood passed with the early urine. Another feature that presented itself in many cases and proved very troublesome was marked irritation of the bladder with great frequency and pain in the suprapubic region often of great severity, Similar unhappy results were reported by other Medical Officers who had taken up this line of treatment, and finally I abandoned it altogether.

For a time I thought that when once the discharge

ad cleared up the final result was more permanent. Further experience however, taught me that this was not so. Relapse cases returned to the lines with about the same frequency as before the treatment was followed, and on the whole the duration of treatment tended to be longer.

(b) FOR INJECTION. INJECTION.

stage had passed off usually) and to the administration of this form of treatment I paid particular attention. I did a number of these cases myself and as far as possible supervised the work when it was done by an orderly. I kept the syringes and various solutions and was at pains to see that all work was carried out under as nearly aseptic conditions as possible, under the circumstances. The salts I used were only three or four in number, Silver Mitrate, Protargol, Argyrol, and Zinc Sulphate. This form of treatment I never made a routine; certain difficulties present themselves in that connection in dealing with the large number of cases we always had. I used it as a variant in cases which did not do very well on irrigation, or showed a tendency to relapse, or for some other reason.

The solution was taken up in a glass syringe of 20cc capacity. The nozzle was inserted into the meatus and the urethra filled up till it was slightly tense, care being taken to avoid overpressure such as would overcome the resistance of the compressor urethrae. The solution was left in five to fifteen minutes or even more, according to the stage of the disease and the patients sensations; the syringe was kept in position during this period.

<u>Silver Nitrate</u> I used in strength of  $\frac{1}{4}-\frac{1}{2}$  gr. to loz of distilled water. This solution I found very useful as a stimulant in slow cases where the tissues of the urethra seemed to have a tolerance to the gonococcus, and a slight discharge was kept up. <u>Argyrol</u> I used in a strength of 10-30 gr to 1 oz of water. <u>Protargol</u> in strength of 1-2 gr to 1 oz of water. <u>Zinc Sulphate</u> 1/500 to 1/100 proved useful in certain cases for its astringent qualities.

COMPLICATIONS & THEIR TREATMENT.

It is, after all, the treatment of complications that constitutes in our present state of knowledge of the disease the greater

part of the work and interest in Gonorrhoea. The main complications amongst these cases were :-

1.	Posterior Urethritis.
2.	Prostatitis.
3.	Epididymitis.
4.	Affections of the Littre's follicles
	and periure thral tissues.
5.	Balanitis.
6.	Rheumatism.

1. The infection spread to the posterior urethra in a number of cases admitted with their first attack, and in the great majority of these it was mild in type. Of hyperacute posterior urethritis unaccompanied by other complications I have rarely seem a case, one such occurred in this series.

(11)

For this involvement of the posterior urethra I put the patient to bed to be kept at rest and reduced dist-milk alone and three pints of barley water warn and slightly flavoured with lenon. The bowels were kept open by mist ALBA Irrigation was stopped for a day or two and urotropine or potassium citrate given by mouth. Not hip baths were ordered. The patient sits in the bath for periods of half an hour three times daily, the temperature being kept up as high as he can bear it by the addition of small quantities of boiling water. A morphia and atropine suppository was given to relieve pain each evening. As soon as possible, even before the acute symptoms subsided,I commenced irrigation with very weak permanganate twice daily (1/10,000 or less). The irrigation was administered by an orderly when the patient was still in bed. But the number of cases calling for such treatment is small.

When the slightly more acute stage had passed over the majority of thesecases cleared up rapidly without any other treatment than irrigation. Sometimes however they lapsed into a more chronic state, requiring dilatation periodically. This I performed with Lister's or Cluttons sounds, or more often with Kollmann's curved dilator. The majority of cases with posterior involvement were slight in nature, and would have escaped notice apart from slight frequency and some pain especially at the end of micturition. The apparent diminution of discharge that is common in these conditions is due to the increased frequency of micturition. Examination of the urine makes the presumption of posterior infection a certainty. These cases cleared up practically always on irrig-

(12)

ation alone i.e. without instrumental interference.

2. The hyperacute and acute prostate I treated along the lines laid down for the hyperacute cases of posterior urethritis above. As soon as the intensity of the attack had sufficiently subsided to admit of it I commenced digital pe prostatic massage, light at first but gradually increasing in weight as the patients could bear it, the massage being preceded and followed by irrigation. I had an orderly trained toperform this operation and all cases undergoing it were recorded by him-as to the state of the prostate and discharge resulting from massage- in a book which was before me as I did my morning inspection. Prostatic massage in the ordinary subacute condition was performed digitally every other day.

3. For these cases I adopted a routine which usually answered very well. If it proved unsatisfactory in any case I naturally adopted some other method. In the acute stages when there was great tenderness, pain, and fever the patient was kept in bed at rest, diet was reduced and the bowels attended to. Local heat was applied in the form of hot water. The testicle was immersed in a bowl containing water as hot as could be borne, (the water being renewed and kept warm) for periods of fifteen to thirty minutes at a time. As soon as the bathing was finished the scretum was well wrapped up in cotton wool and laid in a U-shaped splint which was support -ed on the upper thigh region. The baths were repeated every hours when the pain was very severe.

(13)

As soon as possible the scrotum and pubis were completely shaved and when the tenderness had diminished sufficiently to admit of the parts being gently handled, a Scott's dressing was strapped on. In most cases, even if the pain increased for an hour or so after the application , this measure was quickly followed by relief of pain and decrease of swelling. A good deal depends on the application of the dressing, and one badly applied may result in more harm than good. Half inch plaster should be used cut in lengths to reach from the junction of skinof penis and scrotum to the junction of the skin of the scrotum and thigh. These are applied to the affected testicle so that the base of the loop supports its lover pole; the whole is like a stump when finished, the lower pole of the tosticle corresponding to the stump. The ends of the loops are included in strapping applied circularly, the whole being applied as tightly as possible (diagram 4)



DIAGRAM TV

Firm and accurate application of this dressing seldom fails to give good results. It is left on two, three, or four days being removed when it slackens and a new one applied.

I have no hesitation in giving a suppository of morphia and atropine to relieve marked pain. Occasionally I gave 1-1 gr hypodermically, but on the whole I think the local

(14)

effect of the suppository is more marked and satisfactory.

On one or two occasions when these means were unavailing I resorted to the methods described below. The application of cold in the form of an ice-bag or iced compress frequently changed sometimes proved a valuable means of allaying pain. Glycerine and belladona I used occasionally and found it fairly satisfactory, but not to anything like the for immediate relief as the application of heat or cold. On a few occasions I treated a very acute epididy mitis by needle puncture and aspiration. Where I seemed to strike a pocketand managed to draw off some fluid this proved astonishingly satisfactory. Pain was relieved almost instantaneously and the change in the patients condition was profound. In other cases, however, in spite of searching with the needle in two or three different directions no relief was afforded seemingly because no pocket had been struck. The relief of tension seems to be the factor that gives relief of pain. I used for the operation a 20cc syringe with a needle of medium size. The parts were well swabbed with methylated spirit and other, and a little ethyi chloride and sprayed on at the intended seat of puncture.

4. In cases where these complications supervened something more than irrigation was usually necessary. A number of these follicles (which are situated on the dorsal and lateral appects of the mucous membrane) often become infected keeping up a slightly purglent or gleety discharge. I found massage of the infected follicles over a straight bougie very good. By

(15)

gradually increasing the size of the bougie dilatation was compined with the massage. But often it was not possible to obtain much dilatation on account of the difficulty of introducing the sound through a meatus that was not very wide. and here the Kollmann's straight dilator was very useful. I used this instrument a good deal, for with it one can obtain real dilatation of the anterior urethra. This is indeed the method on which I placed reliance where I wished to attain any degree of dilatation. On this subject of dilating the urethra Fraisse makes some very interesting remarks in his book " GONORRHEE CHRONIQUE DE L'HOLME ". At pp 45 et seq. we find the following: - 'Les canaux ejaculateurs, les conduits prostatiques, les trajets des lacunes, en un moi toutes les voies qui amenent des liquides dans le canal sont dirigees d'arriere en avant, s'ouvrent obliquement sur la nuqueuse on regardant vers le meat. De meme, les divers obstacles anatomiques ---- sont disposes pour etre franchis d'arraniere en avant, suivant le cours de l'urine et du sperme, et non d'avant en arrière, comme nous faisons lors du passage des sondes, ---- Enfin, le canal tout entier est susceptible d'une énorme ampliation, lorsqu'il est parcouru dans le sens naturel. C'est ainsi qu'il livre passage a des calculs gros comme des noisettes, quand la surface de ces derniers est suffisament lisse et arrondie pour ne point blesser la muqueuse.

Par contre, quand nous voulons dilater l'urethre par les procedes ordinaires, c'est a dire en introduisant des tiges metalliques de plus en plus volumineuses, nous le prenons, qu'on passe l'expression, a rebrousse-poil, et des

(16)

lors mettons bien vite en éveil toutes ses propriétés de resistance et de contraction; la muqueuse elle-même est offensée, irritée par des manoeuvres qui s'exercent dans un sens antiphysiologique. Bref, on se place dans les pires conditions pour obtenir une dilatation rapide, efficace, exempte de dangers.' It will be seen that the Kollmann straight dilator (for the anterior urethra) corresponds more or less to the requirements of a natural dilator. It is closed while being introduced into the canal and opened up gradually after it is in position. The maximum dilatation takes place at the distal part of the instrument, and it is a closer approach to nature than the straight dilators. Which one uses in series.

Where a periurethral abscess developed it was sometimes necessary to incise. I have performed this operation both externally and internally and seemingly obtained as good results from the one as from the other so far as primary cure was concerned. The incision was always made longitudinally. As to the ultimate results on the lumen of the urethra in my cases I had not an opportunity of judging.

5. In moderately acute cases of Balanitis I found that the condition would usually yield to frequent syringing of the preputial cavity with 1/8000 Perchloride of Mercury, and indeed I rarely had to resort to further treatment for the actual condition. In very acute cases with elongated and tight foreskin I put the patient to bed, had the parts bathed frequently with Hydrogen Peroxide, 10 volumes, and the sac syringed with Perchloride of Mercury 1/8000. When the acute symptoms had entirely subsided I performed a complete circuncision. In the few cases which failed to respond to bathing and syringing I performed a slitting operation at once and followed it up later by a more complete operation to produce a more aesthetic result.

6. Two cases of Rheumatism cropped up in the first 100 cases, numbers 22 and 32. These were treated by prostatic massage and local applications. Number: 22 had Bier's hyperaemia to the involved joints; number 32 was very chronic and stubborn- see records.

URINE EXAMINATION. In the later stages of treatment the examination of urine was carried out as a rout**ine** procedure. By this was discovered or confirmed.

the presence of infection in the posterior urethra, and an indication was obtained of the progress towards recovery. Test tubes were used (large size) and a three tube method was employed as broadly practical. It was not possible to obtain a supply of conical glasses. The greater part of the urine was passed into the first test tube, a small portion into the second, and the last few drops expressed into the third. In an ordinary healing anterior urethritis there was usually some pus in tubes first and second, the third being clear. In cases with involvement of Littre's glands it was usually found that the first two tubes contained a number of commas, light curled filaments which remained floating for a considerable time. Heavy filaments in the third tube ( these appeared also in the first two tubes at the same time ) indicated involvement of the posterior urethra and probably also of the prostate. It is to be noted that these

(18)

examinations only give a broad indication of the source of the filaments: for more accurate indication of the site of the lesion a much more elaborate examination would be necessary. which could hardly be undertaken as a routine with so many cases. I often sent filaments to the laboratory for bacteriological examination, but the results were almost invariably negative. The urines of all cases were examined previous to discharge to duty. Some 50% were clear in all portions. A number showed a haziness or turbidity with no flakes and which did not clear on the addition of acetic acid; this was probably due to increased secretion from the mucous membrane in reaction to treatment, and not to the presence of gonococci. A few still showed an odd flake or two (free from GC by the bacteriologist's finding), and the exigencies of the services demanded that these men be returned to duty; it was out of the question to keep every case till the urine was free from flakes.

In the early days one was sather handicapped in dealing with these cases by the lack of a urethroscope, but later a Luys set was obtained, and proved very helpful.

In ordinary plain straight-forward cases the

GENERAL HYGIENE. patient was put on hospital light diet and rested during the first four to seven days, while the bowels wereattended to. Rest did not mean absolute rest in bed, but freedom from outside fatigues of all kinds. The patient rose at reveille, made up his bed, shaved, and paraded at M.O.'s inspection. He underwent treatment as ordered, then returned to his tent and lay down on his bed-boards. (The bed was of the hard variety, three ped-

(19)

ped-

boards laid side by side on two transverse supports). In the afternoon he again paraded for treatment, returning to rest as before. At the end of this time provided the discharge was lessening in a normal manner he wasput on ordinary diet and light fatigues, such as picking up papers and matches around his tent and tidying up the paths. When the discharge was reduced to a very slight amount heavy fatigues were ordered in the performance of which the patient had to do a moderate day's work. If marked increase of the discharge resulted he was put back to light fatigues.

When the discharge had dried up for three to ROUTINE OF five days the routine practice was to stop DISCHARGE. irrigation and give two small bottles of stout after dinner on two successive days; if no

discharge appeared after this, and the final sample of urine is practically clear, the patient is passed on to the Commanding Officer's inspection, recommended for "details". If the dommanding Officer was satisfied that all was well the patient passed out into details Rest Camp alongside. While there he was doing work which was almost as heavy as anything he had been asked to do during his training; and was certainly heavier than what was demanded from him during an average day up the line. He was inspected by me every other day and if he keptwell for a week was recommended for duty. Once again he had to parade before the Commanding Officer and if passed this time he went out to higRegimental or Divisional depot. Before he left that to proceed up the line he was examined by the M.O.i/c troops there. So that

(20)

the condition of each case was subject to a check at various points and it was a good guarantee of his "cure" that he should manage to pass this barricade of examination. And a percentage of men were not averse to coming back to hospital.

INTRAMUSCULAR INJECTIONS of SUCCINIMIDE OF MERCURY. What is called the internal treatment of gonococcal infection by some of the Mercury salts has not infrequently suggested itself to the minds of those dealing with the disease, especially to those who have been treating

cases of double infection, Syphilis and fonorrhoea. It was remarked in this hospital that a percentage of such cases also were undergoing a course of treatment for their Syphilis seemed to be cured rather more quickly of their Gonorrhoea than usual. The course of treatment for Syphilis included intravenous "606" and the administration of Mercury ( grey oil ) by intramuscular injection. It was supposed that possibly the "505" had something to do with this unusually quick cure, but a number of cases of gonorrhoea treated by "606" alone (a course of intravenous injections) showed no improvement on any other method so far tried.

Lieut. Col. Harrison, D.S.O., the Officer in Command of the hospital, brought to my notice a copy of the paper of B.L. Wright on the "Treatment of vegetable parasitic origin by deep injections of Mercury." ( New Mork Medical Record, February 22nd, 1913. ) in which excellent results were claimed for SUCCIMIMIDE OF PERCURY. A small quantity was procured by him for the hospital, and asked he to try its effects on some of my cases.

This salt of Mercury is a heavy white amorphous porder much more soluble in water than the usual Mercury compound. At about blood-heat it gave a clear solution of 5% strength. I had it prepared in the laboratory and put up in 50 cc bottles, the whole being carefully sterilised.

(22)

For the operation of injecting I used an all glass syringe carefully sterilised. The needles I kept beside me in a basin of Methylated spirit with some lint at the bottom, and as a rule I used ordinary steel ones supplied for intranuscular work. The injection was usually made into the buttock in the region above the great trochanter and in front of a line passing perpendicularly 4" behind its posterior border. The essential thing is to avoid the region of the sciatic nerve and the gluteal vessels. Some men preferred the injection in the arm. and then I gave it in the triceps region. (In two of these cases a certain amount of neuritis of the musculo-spiral resulted, one yielding quickly to treatment, but the other proving very resistant.) The skin over the area of puncture was painted over with Tincture of Iodine and allowed to dry; the syringe taken up and the needle flamed; the needle plunged through the rubber cap of the bottle and the desired quantity of solution drawn into the barrel, the needle withdrawn; the needle once more dipped into methylated spirit and flamed; then the injection carried out by plunging the needle vertically into the tissues so that when the solution was expressed from the syringe it went into muscular tissue. When the needle was withdrawn a drop of Tincture of Ioding.

was applied over the puncture and the area of injection gently massaged for a couple of minutes. With these pressutions the needles remained good for many inoculations, asepsis was assured for each case, and complications from the actual technique were reduced to a minimum.

Some complications did ensue, but none that were serious; and all of then passed off quickly. The great majority suffered no inconvenience beyond a slight disconfort at the seat of inoculation; this pain was sufficient to give rise to a distinct disinclination to allow anybody or anything to approach or touch that region for a day or two. A rather marked induration occurred at the seat of injection in a few cases and persisted for several days, but in no case did I have trouble arising Stomatitis occurred in 20% of the cases: it from sepsis. was nearly always very slight. In every case that developed this complication the teeth were in a bad state and badly looked after prior to treatment. The incidence of stomatitis was reduced and its severity distinctly lessened by attending to the hygiene of the mouth from the outset. All cases cleared up rapidly by the use of Hydrogen Peroxide mouth washes, brushing the teeth daily with a solution of Sodium Bicarbonate grs 10 to oz 1 of water, and 15 grs of Potassium Iodide by mouth three times daily. Diarrhoea occurred in 21 cases. 4 having blood in the stools. There was a certain amount of pain, but not spere and the general condition of the patients was good. The looseness passed off within 48 hours leaving the patient quite fit, the treatment consisting solely of the administration of 15 grs Potassium three times daily.

This Mercurial salt is rapidly absorbed and very soon excreted. Mercury was present in the urine of a number of cases where a specimen was taken for analysis sixteen to twentyfour hours after the injection. All traces had usually disappeared in three to four days. Analysis of the urethral discharge also was positive for mercury, suggesting that small amounts were excreted by the urethral mucous membrane, though it may have been that the finding was due to the small amount of urine coming away with the discharge. These chemical examinations were made by Pte Hulls. R.A.M.C..

The records of the first 100 cases are given below, and I now proceed with an analysis of this series. I compare these figures with those obtained from a similar analysis of the first 500 cases treated by this mercury salt in my lines.

As it happened the first few cases with which the intramuscular injection of the succinimide salt of mercury was tried cleared up quickly and well, and on the whole the results were so encouraging that this form of treatment was taken up by many of the medical officers treating generrhoea in this hospital. At first, as a general rule , only one dose was given, put later on this was changed. The dosage was 40 milligrammes for a fresh case and 60 milligrammes for a more chronic case. Later when I began to give two or even more doses the amount was 50 milligrammes at one injection without producing any harmful effects. In the cases recorded nos 96 to 100 had two doses. The quick absorption and rapid excretion of the salt made one think that

(24)

in order to obtain a more prolonged effect it would be better to give two or more doses with an interval between, and this was the method adopted later on and the one which became a routine in the hospital.

As a rule the discharge seemed to become rapidly and markedly reduced after the injection, so that very often by the 3rd, 4th, to the 6th day it was very slight indeed. This point was noticed early, and when other M. Os. took it up they remarked on it also. I had the discharge one, two, three four and more days after injection submitted to bacteriological examination on many occasions, but no outstanding features were reported. It was suggested by one pathologist that the gonococci in these cases seemed to show a more extra-cellular distribution than was usual. Of the cases whose record is given below there were

64 suffering from their first attack and 36 suffering from a relapse of an old condition or who had a history of urethral discharge on two, three, four or more previous occasions

According to the history of the cases the average incubation was 3.6 days, and varied from 2 to 30 days. Dividing them up into two groups we find that the average stay in hospital (1) Cases whose incubation period was <u>over</u> 8.6 days.....37 days. (2) " " <u>under</u> " .....40 " . And similar finding was obtained over 500 cases. This might either greater virulence of the strain with the shorter incubation period, or lesser resistance on the part of the host. And though one has no figures to support the statement, one has a feeling that a similar state of relationship between the period of incubation and the stay in hospital was present over the very much larger series of cases one treated previous to the introduction of succinimide.

The average time elapsing from the appearance of discharge till the time when the case came under hospital treatment is considerable, over 7 days. This delay was impossible to avoid since a great number of the cases had to come from the front to the base. During the interval that elapsed between reporting sick to the regimental Medical Officer and the arrival in hospital little could be done as a rule. The R.M.C. has no facilities for treatment, there are none at a field ambulance, and this type of is not looked on kindly at the Casualty Clearing Station. With a slight delay at each of the latter two units ( and not anything very often in the way of treatment), and then a slow, uncomfortable, and often long train journey, the sufferer is not exactly under the happiest conditions for combatting his disease.

The question naturally arises as to how the prognosis is affected by delay in coming under treatment. Some indication of this should be gained by comparing the stay of those who came under treatment under 7 days, and those over 7 days. (1) Cases under treatment in <u>less</u> than 7 days from appearance of discharge....<u>37</u> days. (2) \_\_\_\_\_\_\_

<u>more</u> -----do----....<u>46</u> days.

The discrepancy was even more marked over the 500 cases for which the figures were <u>36</u> and <u>46.5</u> days respectively. It seems a fair deduction that the sooner a case came into hospital after the disease had become manifest, the more satisfactory the prognosi with regard to the shortening of the period of treatment.

Amongst the cases a certain number of complications were present on admission, or developed prior to the injection, or arose subsequently in the course of the disease. They will be considered in this analysis mainly from the standpoint of how they affected the duration of the stay in hospital.

Amongst the 64 cases suffering from the first attack POSTERIOR URERHRITIS. 8 developed some involvement of the posterior

> For the first 500 cases the figures vere.. .....24% and 57 days.

Amongst the 36 cases suffering from relapse or further attack only two are noted as having this complication, Nos 29 and 32.

PROSTATITIS. This complication supervened in 8 cases with their first attack, Nos 23, 31, 33, 44, 52, 60, 54, 95. Of these Nos. 52 and 95 were acute and the GC was recovered from the secretion. The others were of the

subacute variety, and only in one or two was the GC recovered.

Polymoorphs were present in considerable number.

Of the cases suffering from relapse or further attack 24 had evidence of prostatic mischief, Nos. 3, 6, 18, 19, 20, 21, 24, 25, 29, 32, 41, 42, 43, 47, 48, 49, 59, 67, 76, 78, 30, 82, 87, 94. These were mostly ranged under the heading of chronic infection, but two were acute, Nos. 80 and 87. Here again the organism was recovered from both acute cases, but while all the others had polymorphs it was rare to find in the secretion obtained from the gland by massage any GC.

Taking the series of 500 cases I obtained the follow-

First attack (	Percentage with prostatic trouble10. Average stay in hospital
Relapse (	Percentage with prostatic trouble75. Average stay in hospital

EPIDIDYMITIS. Of the cases affering from their first attack 8 had epididynitis, 2 having it on admission

and the others developing it after admission;

before nos. 13 and 35: after nos. 16, 33, 35, 52, 71, 97.

Of the others 9 had epididymitis, 4 being admitted with it, nos 28, 34,61, 72; and 5 developing it after admission, nos. 3, 37, 42, 48,57.

This shortening of the period of stay is probably to

be accounted for by the large proportion who had the condition on admission to hospital.

In two cases there was very definite infection of LITTRITIS & Littre's glands, nos. 49 & 56. A soft infiltrate INFILTRATE, developed in no. 81; a periurethral abscess in no.

40; and in no. 42 a hard infiltrate was present.

In the series of 500 cases the figures were:

In the larger series there was a greater proportion of cases with involvement of the glands and lacunae.

BALANITIS. Gonococcal balanitis was present in three cases, nos. 64, 69, 88. It prolonged the stay in hospital.

Two cases had rheumatism, nos. 23 and 32. In the former the right ankle and the left knee were affected, in the latter both knees and ankles. Case 23 cleared up very quickly being in hospital only 38 days, but the other was under treatment 136 days.

WARTS. One case had this condition in glans and prepace, no. 65, causing considerable delay in cure. ( 36 days.)

(29)

I was not able to obtain figures as to the incidence of complications under the regime of treatment in vogue in the hospital previous to the introduction of the use of intramuscular injections of succinimide of mercury. but from discussion of the matter with other medical officers, and judging by my own experience, I should say that the results recorded above compare very favourably with them. In our work one of the objects aimed at, and an important one from the military point of view, was the reduction of the total time under treatment, and so a minimising of the wastage from this particular disease. For a very large majority of the men affected were combatants, and by being in hospital they were off the fighting strength; while the remainder were probably equally important units in the smooth working of the fighting machine. Cur object was to return them to their places in this as quickly as possible and in such a condition of health that in spite of the fatigue, danger, or hardship of carrying out their duties they would not break down again. On the whole they were subject (in the large najority of cases) to more hardship and fatigue - and possibly more temptation in the matter of alcoholic and sexual excess - than they would have been in ordinary civil life.

(30)

This gives an average over all cases of 39.5 days, and it includes all types and all complications, some being particularly chronic and intractable, e.g. posterior urethritis with ulceration as revealed by urethroscopic examination, rheumatism &c. Å comparison of this figure with the averages obtaining in cases with the various complications will serve to give an idea of how these delay the cure and prolong the stay of the patient in hospital. This period of 39.5 days contrasts very favourably with the 49.3 days for a large series of cases treated under practically similar conditions prior to the introduction of the succinimide of mercury. With increasing numbers of admissions and a struggle to keep pace with this in the matter of accompliant, the saving of a few days is of very great importance 210 of the 500 were returned to duty within 25 days of their injection.

Of these 500 cases there were readmitted for a relapse only 21, giving a percentage of4.2. In a large series of cases previously there were 10% of relapses, so that the new method was a definite step forward.

The results seen to indicate that in this mercury salt is to be found a very useful addition to our remedies for the treatment of gonorrhoea. On the whole they seem to show some distinct advantage in that there is a definite reduction in the duration of treatment, in the incidence of complications, and in the number of relapses. Obviously the salt is not by any acans the specific for the disease that would be the end of all our search, nor does it nearly approach in gonorrhoea the role of the arsenical compounds or mercury in syphilis. But it occurs

(31)

to one that this may possibly be a step in the right direction, setting on to a road that may lead to better things. Ferhaps some other organic combination of mercury, perhaps one of the silver compounds, or a combination of the two would bring one nearer to the goal towards which all efforts must be directed once a disease has gained entrance to the body, i.e. its cure. Unfortunately from the point of view of

continuing the work begun on this subject I was transferred to a Field Ambulance in February 1915, and I have remained up the I have line since then. During this time collected together the notes on these cases and written them up in this paper.

B. E. F. 17/2/17. HEGORDS OF CASES.

No. 1. Admitted 21.7.15.

Birst attack.

History. Discharge said to have connenced 28 days after exposure and 5 days before admission.

CONDITION AND TREATMENT. On admission considerable purulent discharge. Routine treatment. On 22.9.15 HG. SUCC. mg 40. Discharge lessened rapidly and was slightly purulent on the 4th day, gleety on the 7th, and had dried up on the 9th day. Two days later irrigation was stopped, stout test, and sent to Details

REMARKS. This seems to have been a acse of simple anterior urethritis.

 $k \in I \setminus I$ 

DAYS IN HOSPITAL: 12. IN DETAILS: 5. TOTAL: 17.

<u>No 2</u>. ADMITTED 21.7.19.

First attack.

HISTORY. Discharge commenced 14 days after connection, and he was admitted 7 days later.

CONDITION & TREATIGENT. Copious purulent discharge. Routine treatment. On 22/7/15 Hg Succ. mg 40. Discharge was very slight by the 4th day, on the 7th day nil. Stout test without reappearance. To Details 10th day.

REMARKS. Simple anterior urethritis.

DAYS IN HOSPITAL: 11. IN DETAILS: 5. TOTAL: 16.

No. 3. ADMITTED 21/5/15.

RELAPSE.

HISTORY. Came to hospital six days after appearance of discharge Had Gonorrhoea 6 months previously.

CONDITION AND TREATMENT. Had purulent discharge in fair amount on admission, and this proved very persistent. The PROSTATE was enlarged. Treated byroutine treatment and prostatic massage varied by spells of Zinc Permanganate. 21/7/15. Sg tuce. Mg 60. Discharge soon cleared up and from the 7th day onwards nil.

REMARKS. This case complicated by EPIDIDYMITIS of stubborn type which was treated by strapped Scott's dressing and 15 Jr doses of Potassium Lodide, t.d.s. It resolved slowly and left a shall hard mass in the region of the Globus Major, very hard but finally painless. The prostatic enlargement cleared up slowly under massage.

DAYS IN HOSPITAL. 94. IN DETAILS. 4. TOTAL. 93. Days under treatment after Injection of Hg Succ. 36.

No. 4. ADMITTED 27/7/15. First attack.

History. Discharge commenced 21 days after connection and he was in hospital 10 days later.

CONDITION AND TREATMENT. He had small amount of discharge on admission and received routine treatment. 5/8/15 Hg Succ. mg 40. Discharge cleared up rather slowly.

REMARKS. Prostate normal but slight posterior urethritis was present. <u>Urine</u> clear in all samples previous to return to duty. 5his case developed pain in the jaws and stomatitis of moderate severity which cleared up rapidly under PCT. IOD. gr 15 t.d.s.

DAYS IN HOSPITAL:21. IN DETAILS:6. TOTAL. 27. Days under treatment after injection: 19.

Mo. 5 ADMITTED 8/5/15. First attack.

HISTORY. Discharge commenced 4 days after connection and he was admitted 6 days later.

CONDITION AND TREATMENT. Hed considerable purulent discharge on admission. Routine treatment. He Succ. mg 60 after which the discharge cleared up fairly well, but a stubborn gleety condition remained.

REMARKS. There was marked involvement of the posterior urethra, and the prostate. The urine contained numerous sinkers in the 3rd portion. The whole condition cleared up under prostatic massage and on discharge urine was clear in all portions.

DAYS IN HOSPITAL:28. IN DETAILS:6. DOTAL:34.

No. 6. ADMITTED 27/7/15.

#### Relapse.

HISTORY. Had Gonorrhoes about a year before which cleared up under medicine and injections; denies having been reinfected.

CONDITION AND TREATHENT. Had purulent discharge in considerable quantity. Routine treatment. 5/8/15. Hg Succ.mg 40. after which discharge cleared up rapidly, and nil by the 7th day.

REMARKS. Had some fulness of the right lobe of the prostate which disappeared after massage; there was also posterior urethritis. He was treated in No.-- Stationary Hospital on three previous occasions. <u>Urine</u> contained a few shreds on discharge to duty. A microscopical examination revealed no <u>GC</u>

DAYS IN HOSPITAL:21. IN DETAILS:11. TOTAL:32. Days under treatment after injection:24.

<u>No.7</u>. ADMITTED. 27/7/15.

First attack.

HISTORY. Discharge appeared 5 days after connection and was present 16 days previous to admission.

CONDITION AND TREATMENT. He had purulent discharge in fair quantity. Routine treatment, followed by a few days Zinc Permanganate 1/3000. Hg Succ.5/8/15. Cleared up well after injection, and by 7th day very slight gleet.

REMARKS. Anterior urethritis. Developed some enetritis after injection but this cleared up rapidly.

DAYS IN HOSPITAL:24. IN DETAILS:10. 5958:34. Days under treatment after injection:14.

<u>No.8</u>. ADMITTED. 29/7/15.

# Re-infection. (?)

HISTORY. Discharge commenced 2 days after connection and was present 9 days before admission.

CONDITION AND TREATMENT. Considerable purulent discharge. Routine treatment. 11/3/15. Hg Succ. mg 40. Cleared up well after this and aws dry on the 4th day.

REMARKS. Anterior Urethritis. Prostate normal.

DAYS IN HOSPITAL: 19. IN DETAILS: 9. TOTAL: 28. Days under treatment after injection. 14.

Nog. ADUITTED 10/5/15.

First attack.

HISTORY. Discharge said to have appeared one month after connection and he came into hospital 6 days later.

CONDITION AND TREATMENT. Routine treatment. Considerable purulent discharge on admission. 11/3/15 Much purulent discharge swarning with Gonococci: Ag Succ. mg 60. Condition cleared up a little and in 7 days he had very slight discharge. A month later he went to duty.

REMARKS. There was considerable ulceration of both anterior and posterior urethra. leading to formation of a large polypus which he passed. He had curved bougies (Lister) up to 12/15. This proved an exceedingly chronic and intractable case. He was discharged to Details 8 days after his injection. A month after going to duty <u>he relapsed</u>. Urine was never free from shreds

DAYS IN HOSPITAL: 100. IN DETAILS: 28. TOTAL: 128. Days under treatment after injection: 44.

No. 10.

ADMITTEL 20/7/15.

First attack.

HISTORY. Discharge commenced 14 days after connection and he was admitted 15 days later.

CONDITION AND TREATMENT. Had considerable purulent discharge on admission. Routine treatment. 5/3/15. Hg Succ. mg 40. He had slight purulent discharge at this time but three days later practically clear. Developed slight gleet which quickly cleared up.

REMARKS. Anterior Urethritis.

DAYS IN HOSPITAL. 12. IN DETAILS. 18. TOTAL 30. Days under treatment after injection: 24.

<u>No. 11</u>. ADMITTED 27/7/15.

First attack.

HISTORY. Discharge commenced ? days after mection and he was

admitted 3 days later.

CONDITION & TREATMENT. Marked purulent discharge. Routine treatment 5/8/15 Hg Succ. mg40. Two days later clear. Remained clear for stout test and details.

REMARKS. Simple urethritis. Urine clear in all portions.

DAYS IN HOSPITAL. 17. IN DETAILS, 10. TOTAL, 27.

DAYS UNDER TREATMENT AFTER INJECTION. 20.

No. 12. ADMITTED 27/7/15. First attack.

HISTORY. Discharge commenced 7 days after connection and he was admitted 10 days later.

CONDITION AND TREATMENT. Marked purulent discharge. Routine treatment, followed towards the end by 6 days on Zinc Permanganate: 5/3/15. Hg Succ. mg 40. Discharge purulent at the time but soon cleared up, and was absent on the 7th day.

REMARKS. Anterior Urethritis. He developed a local reaction and swelling after injection which cleared up gradually.

DAYS IN HOSPITAL. 17. IN DETAILS. 11. TOTAL. 28.

DAYS UNDER TREATMENT AFTER INJECTION. 24.

No. 13. ADMITTED 10/8/15.

First Attack.

HISTORY. Discharge commenced 7 days after connection and 3 days later Epididymitis supervened. Three days later he was admitted.

CONDITION & TREATMENT. Irrigated 1/8000 Pot. Permanganate, followed by 1/4000 and finally Zinc Permanganate, 1/8000. The Epididymitis was treated at first by BIER'S hyperaemia and then Scott's dressing strapped on. 20/8/15. Hg Succ. mg 40, after which the discharge cleared up rapidly and was dry by the 5th day ,remaining clear to stout test and details.

REMARKS. Had a little posterior urethritis but the prostate was not involved. Epididymitis cleared up rapidly and the condition was normal on discharge to duty. <u>Urine</u> clear in all portions. No 14. ADMITTED. 19/3/15.

First attack.

History. Discharge commenced 8 days after connection and he was admitted 5 days later.

CONDITION AND TREATMENT, Marked purulent discharge on admission. Routine treatment. 21/3/10. HS Succ. mg 40. Next day the dis-charge was distinctly less; and by the 7th day absent. Remained clear for stout test and details.

RELARKS. Simple anterior urethritis. Urine clear.

DAYS IN HOSPITAL. 12 IN DETAILS. 3. TOTAL. 15.

TOTAL AFTER INJECTION. 13.

No. 15. ADMITTED 27/7/15.

First attack.

HISTORY. Discharge commenced 7 days after connection and he was admitted 20 days later.

CONDITION AND TREATMENT. Marked purulent discharge. Routine treatment and in addition Zinc Permangahate1/3000 for the last few days. 11/8/15. Hg Succ. mg 40. Had slight purulent discharge at the time which cleared up within 7 days. Stout test and went to details clear. 4 days later relapsed to slightly purulent. This became gleety next day and quickly cleared up.

REMARKS. Had mild posterior urethritis. Urine still had a few shreds on discharge to duty.

DAYS IN HOSPITAL. 20. IN DETAILS, 20. TOTAL. 40.

AFTER INJECTION. 25.

No. 15. AD ITTED 15/7/15.

First attack.

HISTORY. Discharge commenced 3 days after connection, and he was admitted 3 days later.

CONDITION AND TREATMENT. Purulent discharge. Routine treatment. 21/8/15. HE Succ. mg 40. Discharge very slight next day and so remained till the 9th day. 3 days later clear. Stout test and details. 4 days later re-admitted with epididymitis - marked swelling, acute pain & tenderness, fever (101.8 deg. F.) Hot

local baths 4 hourly till the pain and temperature subsided. Testicles were then shaved and Scott's dressing strapped on . Potassium Iodide gr 15 t.d.s.

REMARKS. Developement of epididymitis possibly associated with fatigues while in details.

DAYS IN HOSPITAL. 45. IN DETAILS. 9. TOTAL. 54.

AFTER INJECTION. 43.

# No. 17. ADMITTEB. 12/7/15. first attack.

HISTORY. Discharge commenced 3 weeks after connection, and he came into hospital 9 days later.

CONDITION & TREATMENT. Purulent discharge. Routine treatment, followed at the end by Zinc Permanganate 1/0000 for three or four days. 20/7/15. Hg Succ. mg 60. Four days later very slight gleet and clear by the 7th day. After stout test sent to details and remained there.

REMARKS. Had some posterior urethritis which required treatment by bougie - he had up to Lister 9/12. Urine which had contained a number of shreds was clear in all portions on discharge to duty.

DAYS IN HOSPITAL. 36. IN DETAILS. 12. TOTAL. 48.

AFTER INJECTION. 40.

<u>NO 13.</u> ADMITTED. 8/8/15.

Relapse.

HISTORY. Had Gonorrhoea some years previously, and denied recent infection.

CONDITION AND TREATMENT. Purulent discharge. Routine treatment. 20/8/15. Hg Succ. mg 60. Had then considerable milky discharge, but by the 4th day this was reduced to a slight gleet, and by the 7th it had cleared up. Stout test and then to details.

REMARKS. Prostate was somewhat enlarged especially the right lobe, but this condition had practically cleared up under prostatic massage every other day. Urine still contained a few shreds in the last portion, but these were free from GC.

DAYS IN HOSPITAL. 22. IN DETAILS 5. TOTAL 27. AFTER INJECTION. 15. No. 19. ADMITTED. 18/8/15.

Relapse.

HISTORY. Was treated in No. -- Stationary Hospital one month ago

CONDITION AND TREATMENT. Purulent discharge.Routine Treatment. 20/8/15. Hg Succ. mg 60. Was then milky but clear 7 days later. Stout test and details, remained clear.

REMARKS. Some prostatitis which was treated by prostatic massage and urine was clear in all portions, at end of treatment.

DAYS IN HOSPITAL. 9. IN DETAILS. 8. TOTAL. 17

After INJECTION. 15.

No. 20. ADMITTED 30/7/15

#### First attack.

HISTORY. Discharge appeared 6 days after connection and he was admitted 3 days later.

CONDITION AND TREATMENT. Considerable purulent discharge. Routine treatment. 5/8/15. Hg Succ. mg 40. Discharge became less purulent but did not clear up well. On 14th day gleety, and only disappeared on 26th day.

REMARKS. This case had posterior urethritis and slight involvement of the prostate, enlargement of the lateral lobes. These conditions improved and healed with irrigation and prostatic massage 202 every second day. <u>Usine</u> clear finally. Developed some pain and swelling at the seat' of injection which cleared up without any trouble.

DAYS IN HOSPITAL. 37. IN DETAILS. 6. TOTAL. 43.

AFTER INJECTION. 37.

No. 21. ADMITTED. 21/8/15

Relapse.

HISTORY. Had Gonorrhoea on two previous occasions - 4 years ago, and 9months ago. He treated himself. Denies any recent exposure. Present discharge was observed 8 days ago.

CONDITION. Slight purulent discharge. Routine treatment and prostatic massage every other day. 22/8/15 Hg Succ. mg60. The discharge dried up a few days later and did not return, was on Zinc Permanganate for the last few days.

REMARKS. The prostate was enlarged on admission, and the urine contained shreds and "sinkers"; but at the end of treatment a 4 hours sample contained only a little mucus and a few fine threads. No Gonococci were found on bacteriological examination.

DAYS IN HOSPITAL.9. IN DETAILS, 15. TOTAL, 24.

AFTER INJECTION. 23.

# No. 22.

ADMITTED. 29/7/15. - First attack. HISTORY. Discharge 5 days after coltus; in hospital 6 days later CONDITION AND TREATMENT. Marked purulent discharge. Routine treatment. 5/3/15 Hg Suge. mg 40. Five days later sent out to details after stout test, ther being no further discharge.

REMARKS. Anterior urethritis: urine clear in all portions at end of treatment.

DAYS IN HOSPITAL. 12. IN DETAILS. 11. TOTAL. 23.

AFTER INJECTION. 16.

No. 23. ADMITTED. 29/7/15.

First attack.

HISTORY. Discharge commenced 8 days after coitus, and he was in hospital 7 days later.

CONDITION & TREATMENT. Purulent discharge. Routine treatment. 5/8/15 Hg Succm. mg 40. On the evening of this day patient developed pain in both feet, and fever-temperature 99.8 deg. E. Two days later there was considerable swelling of the right ankle below the internal maileolus. This cleared up gradually under prostatis massage and Bier's hyperacmia to the affected joint. On the 23rd there appeared a synovitis of the left knee. and this was successfully treated by the same method.

REMARKS. This case had involvement of the posterior urethra and the prostate; also rheumatism. The urine which had contained numerous sherds and sinkers had a few fine commas on discharge to duty, and was free from Gonococci.

DAYS IN HOSPITAL. 33. IN DETAILS. 5. TOTAL 33.

AFTER INJECTION. 32.

No. 24. ADMITTED 3/8/15

#### Second attack?

HISTORY. Had Gonorrhoea 11 months previously for which he was treated in hospital in England. This time discharge appeared 6 days after connection and he treated himself for 6 weeks.

CONDITION & TREATMENT. Purulent discharge. Routine treatment. Prostatic massage every second day. 20/3/15. Hg Succ. mg 60. Discharge lessened and 6 days later to details after stout test.

REMARKS. The prostate was enlarged on admission and the urine contained numerous shreds. This condition had passed off by the end of treatment, and the urine was clear in all portions and free from GC.

DAYS IN HOSPITAL. 22. IN DETAILS. 15. TOTAL. 37.

AFTER INJECTION. 25.

### No. 25.

ADMITTED 19/8/15. Relapse. HISTORY. Had just been discharged from hospital 1 month previously. CONDITION & TREATMENT. Purulent discharge. Routine treatment. 25/3/15. Hg Succ. mg 60. and 9 days later clear.

REMARKS. Had <u>balanitis</u> on admission and slight involvement of prostate. Former soon cleared upby washing with 1/8000 perchloride of Mercury. Prostatic massage was given every other day. In spite of these complications the condition cleared up fairly quickly. <u>Urine</u> which had contained a fair number of large shreds was almost clear on discharge and contained no GC.

DAYS IN HOSPITAL. 16. IN DETAILS. 7. TOTAL 23.

AFTER INJECTION. 17.

<u>No. 26</u>. ADMITTED 27/7/15.

First attack.

HISTORY. Noticed discharge 4 weeks after coitus; in hospital 7 days later.

CONDITION & TREATMENT. Slight purulent discharge. Routine treatment. 5/3/15. Hg Succ. mg 40. 11 days later clear, and remained so, after a slight relapse in details.

REMARKS. Anterior urethritis. <u>Urine</u> clear in all portions n on discharge to duty.

DAYS IN HOSPITAL. 21. IN DETAILS. 13. TOTAL 34. ADMED INJECTION. 26. No. 27. AD HITTED 10/5/15. First attack.

HISTORY. Discharge appeared 7 days after connection, and 3 days later he was in hospital.

CONDITION AND TREATMENT. Marked purulent discharge. Routine treatment. 20/3/15 Hg Succ. mg 60. Discharge was slight at this time, and 5 days later had disappeared.

REMARKS. Some posterior urethritis. Cleared up gradually on irrigation and very quickly after the injection. Urine was free from shreds on discharge to duty.

DAYS IN HOSPITAL. 48. IN DETAILS. 4. TOTAL. 52.

AFTER INJECTION. 11.

<u>No. 23.</u> ADMITTED. 19/8/15.

### Reinfection.

HISTOPY. Discharge 5 days after coitus; hospital 9 days later. Admitted with <u>epididymitis</u> CONDITION AND TREATMENT. Copious discharge. Routing treatment 21/8/15. Hg Succ. mg 40. Condition cleared up quickly. The epididymitis was treated by **\$**cott's dressing strapped. the <u>prostate</u> which was slightly enlarged was massaged every other day. REMARKS. Epididymitis well and urine clear on discharge to duty.

DAYS IN HOSPITAL. 10. IN DETAILS. 6 TOTAL. 16.

AFTER INJECTION. 14.

No. 29. ADMITTED. 3/6/15. Second attack.

HISTORY. Discharge 6 days after coitus; hospital 9 days later.

CONDITION AND TREATMENT. Copious discharge which did not lessen much under irrigation. 23/7/15 Hg Succ. mg 60. Did not clear up for another month.Had prostatic massage and curved bougies (Lister) Nos 7/10 to 12/15. Protargol injections were given but without marked benefit.

REMARKS. Very chronic case with <u>Prostatitis</u> and <u>Posterior</u> <u>urethritis</u>. Urine still contained a few small shreds on discharge to duty, but was free from GC.

DAYS IN HOSPITAL. 66. IN DETAILS. 19. TOTAL. 85.

AFTER INJECTION. 39.

No 30. ADMITTED. 19/8/15.

First attack.

HISTORY. Discharge 21 days after connection: hospital 6 days later.

CONDITION AND TREATMENT. Copious purulent discharge. 21/8/15. Hg Succ. mg 40. Routine trearment continued, clear 8 days later Zinc Permanganate a few days.

REMARKS. Anterior urethritis: no complications.

DAYS IN HOSPITAL. 12. IN DETAILS. 13. TOTAL. 25. AFTER INJECTION. 23.

No. 31. ADMITTED. 29/7/15.

First attack.

HISTORY. Discharge commenced 4 days after coitus.hpl 5 days later.

CONDITION AND TREATMENT. Considerable purulent discharge : Routine teratment. Discharge was still slight and purulent at end of three weeks. 20/3/15 Hg Succ. mg 60. Two days later clear but became again slightly purulent before disappearing entirely.Prostatic massage every other day from 13/3/15.

REMARKS. Complicated by Prostatitis and Posterior Urethritis.

DAYS IN HOSPITAL. 30. IN DETAILS. 24. TOTAL. 54. AFTER INJECTION. 33.

No. 32. ADMITTED 3/6/15.

#### Relapse.

HISTORY. Had Gonorrhoea on twoprevious occasions. Denies recent exposure. discharge 7 days before admission.

CONDITION AND TREATMENT. Marked purulent discharge. Routine treatment. 20/3/15. Hg Succ. ng 40. still purulent. 7 days later clear: and remained so. Prostatic massage after the 20th.

REMARKS. Some involvement of the prostate and posterior urethra. Urine free from GC on going to duty.

DAYS IN HOSPITAL.22. IN DETAILS.26. TOTAL. 48. AFTER INJECTION. 36.

# (14)

NO. 33. ADMITTED. 1/7/15.

#### First attack.

HISTORY. Discharge 7 days later; in hospital 12 days later.

CONDITION AND TREATMENT. Much purulent discharge. Routine treatment. developed <u>Epididymitis</u> 4 days later. 19/3/15. Hg Succ. mg 60. 14 days after was clear. Hot local baths, suppository of Morphia and abropine, and later Scott's dressing: also massage of the prostate.

REMARKS. Complicated by <u>Epididynitis</u> and slight <u>prostatitis</u>. Condition was cured finally, urine free from GC.

DAYS IN HOSPITAL. 63. IN DETAILS. 3. TOTAL. 66. AFTER TREATMENT. 45.

No. 34. ADMITTED. 23/3/15.

Relapse.

HISTORY. Discharge 10 days after coitus; hospital 4 days later. Had been treated in another hospital 5 months previously. Epididymitis on admission.

CONDITION AND TREATMENT. Marked purulent discharge: Routine treatment 29/8/15 Hg Succ. mg 60. Scott's dressing to the epididymis and Potassium Iodide t.d.s.(gr. 15). Massage to prostate.

REMARKS. Complicated by Ebididymitis and Prostatitis both of which cleared up under appropriate treatment. Urine GC-free.

DAYS IN HOSPITAL. 16. IN DETAILS. 11. TOTAL. 27.

No. 35. ADMITTED. 1/7/15.

First attack.

HISTORY. Discharge 7 dats after coitus: hospital 3 days later.

CONDITION AND TREATMENT. Considerable purulent discharge. Routine treatment. Did not clear up in a satisfactory manner, and still pus after a month. 5/3/15. Epididymitis temp. 102 deg. during three days, marked swelling and extreme pain. Hot local paths for 7 days, occasional suppository of cocaine and atropine 19/3/15. Hg Succ. mg 50. 7 days later patient was well, and remained so. Prostatic-massage given also.

REMARKS. Epididymitis and some Prostatitis.causing case to be rather chronic. Urine was clear on discharge to duty.

DAYS IN HOSPITAL. 62. IN DETAILS. 4. TOTAL. 66. AFTER INJECTION. 18. No. 36. ADMITTED. 24/8/15.

First attack.

HISTORY. Discharge 3 days after coltus: hospital 4 days later.

CONDITION AND TREATMENT. Purulent discharge: Routine treatment. 25/8/15 Hg Succ. mg 40. 3 days later dried up, and kept so.

REMARKS. Urine clear in all portions on discharge to duty. Simple anterior urethritis.

DAYS IN HOSPITAL. 15. IN DETAILS. 5. TOTAL. 20. AFTER INJECTION. 19.

No. 37. ADMITTED. 15/7/15.

Relapse.

HISTORY. Had Gonorrhoea 3 years ago: denies recent exposure, but suggests alcoholic excess: discharge 4 days ago.

CONDITION AND TREATMENT. Considerable purulent discharge: Routine treatment: 20/7/15. Hg Succ. mg 60. Discharge lessened but 11 days later developed Epididymitis.(left) with temperature and fair amount of swelling. Hot local baths 3 days then shaved and Scott's dressing plus Pot.Iod. gr. 15 t.d.s.

REMARKS. Delayed by the complicating <u>Epididymitis</u>: prostate was not enlarged, and posterior urethra unaffected.

DAYS IN HOSPITAL. 28. IN DETAILS. 5. TOTAL. 33. AFTER INJECTIOM. 27.

No. 38. ADMITTED. 29/7/15.

Relapse.

HISTORY.

CONDITION AND TREATMENT. Purulent discharge: Routine treatment and prostatic massage every other day: 5/8/15. Hg Succ. mg 60. 5 days later had watery morning gleet which however cleared up.

REMARKS. Had a rather persistent gleet; urine still had some fine debris on discharge to duty, but was free from GC.

DAYS IN HOSPITAL. 14. IN DETAILS. 16. TOTAL. 30. AFTER INJECTION. 24. No. 39. ADMITTED. 19/8/15.

Relapseidet.

HISTORY. Had first attack 20/4/15. Discharge reappeared 8 days ago. Denies recent exposure. Treated himself by capsules.

CONDITION AND TREATMENT. Marked purulent: Routine treatment. 21/8/15. Hg Succ. mg 60. 8 days later was completely dried up and remained so. Had prostatic massage every other day.

REMARKS. Definite prostatitis on admission, and urine had abundant sinkers; but was almost clear at end, and no GC.

DAYS IN HOSPITAL. 12. IN DETAILS 10. TOTAL. 22. AFTER INJECTION. 20.

NO. 40. ADMITTED. 12/7/15.

First attack.

HISTORY. Discharge 8 days after coitus; hospital 13 days later.

CONDITION AND TREATMENT. Copious purulent; routine treatment; 13/7/15. Hg Succ. mg 40. 16/7/15 <u>Acute periurethral abscess</u> which was incisted on 20/7/15. On 25/7/15 he developed <u>Acute</u> <u>Prostatitis</u> with pain and frequency marked. Hot hip baths & morphia suppositories daily for 4 days. Afterwards hot hip baths alone, and at end of 10 days light massage. One or two pus pockets found and emptied. and GC found in the pus.

REMARKS. At the end of treatment the urine which had contained hany shreds was almost clear, and prostate was back to normal.

DAIS IN HOSPITAL. 49. IN DETAILS. 3. TOTAL. 52.

No. 41. ADMITTED. 24/4/15.

Relapse?

HISTORY. Had Gonorrhoea 18 months previously. This time discharge 8 days after coitus, and in hospital 8 days later.

CONDITION AND TREATMENT. Purulent discharge; routine treatment. From 24/4/15 he was treated by various irrigations and injections, had prostatic massage, and was dilated in both the anterior and the posterior parts of the urethra; but still there remained some purulent discharge. 21/1/15 Hg Succ. mg 60. Discharge dried up gradually but he was not fit for duty for 6 weeks.

REMARKS. A very intractable case, complicated by <u>prostatitis</u> and ulceration of both anterior and posterior urethra: GC were present in pus up till the 10/6/15, but afterwards mainly mixed cocci mostly Gram positive, and only rarely a few GC. This case was tried early on with Vaccine (mixed GC and Staphylococci)50million GC per dose. There was usually some local reaction, and at the 5th dose a severe general reaction which lighted up the previous seats of inoculation. At different times tried for irrigation or injection 1/8000, 1/4000 Potassium Permanganate, 1/8000 Zinc Permanganate, Hydrarg. Perchlor., Dakin's solution.

Days IN HOSPITAL. 127. IN DETAILS. 3. TOTAL. 130. AFTER INJECTION. 44...

#### No. 42. ADMITTED. 27/7/15.

### Relapse.

HISTORY. Had gonorrhoea 18 months ago. Discharge 10 days before admission.

CONDITION AND TREATMENT. Purulent discharge: Routine treatment. Hg Succ. mg 60.: was not quite clear for almost a month after this. Had prostatic massage every other day. Considerable infiltrate of a chronic nature along the posterior and bulbous and membranous urethra. This was treated by gradual dilatation. At first he was only able to take a whalebone and this was followed by railway catheter: before going to duty he took Lister 8/11.

REMARKS. Chronic condition with <u>posterior urethritis</u>, <u>prost</u>atitis, and <u>hard infiltrate</u>.Urine not clear but no GC.

DAYS IN HOSPITAL. 40. IN DETAILS. 5. TOTAL. 45. AFTER INJECTION. 37.

<u>NO. 43.</u> ADMITTED. 20/8/15.

Relapse,

HISTORY. Discharge appeared 3 days ago: denies recent exposure. Previously treated in this hospital for 86 days on irrigations and bougies.

CONDITION AND TREATMENT. Marked purulent discharge: routine treatment: 21/3/15. Hg Succ. mg 60. Prostate was massaged every other day.

REMARKS, Had some prostatitis on admission. Urine which had contained a fair number of shreds was almost clear at end: no GC

DAYS IN HOSPITAL. 12. IN DETAILS. 12. TOTAL. 24. AFTER INJECTION. 23.

No. 44. ADMITTED, 10/6/15.

First attack.

HISTORY. Discharge 24 days aftercoitus, hospital & days later.

CONDITION AND TREATHENT. Markedly purulent on admission, and was reduced only slowly. 21/7/15 Hg Succ. mg 60, after which clear 7th day. The PROSTATE was enlarged on admission and treated by massage.

REMARKS. Fairly chronic case with Prostatic involvement. Wrine which had contained shreds became clear under treatment.

DAYS IN HOSPITAL, 48. IN DETAILS, 2. TOTAL, 50. AFTER INJECTION. 8.

<u>No. 45</u>. ADMITTED. 9/3/15.

First attack.

HISTORY. Discharge 12 days after coitus, hospital 6 days later.

CONDITION AND TREATMENT. Considerable purulent. 20/8/15 Hg Succ. mg 40, and Y days later was sent to duty.

REMARKS. Simple anterior urethritis.

DAYS IN HOSPITAL. 17. IN DETAILS. 2. TOTAL. 8. AFTER ILJEUTION. 8.

No. 46.

ADMITTED. 10/7/15. First attack HISTORY. Discharge 7 days after coitus, hospital 4 days later. CONDITION AND TREATMENT. Marked purulent . Claered slowly at first. 20/8/15 Hg Succ. mg 60. 9 days later went to duty. Had some posterior urethritis which healed quickly.

REMARKS. Urine almost clear at end of treatment. No GC.

DAYS IN HOSPITAL. 43. IN DETAILS. 4. TOTAL. 52. AFTER INJECTION. 11.

No. 47. ADMITTED. 2/8/15.

Relapse.

HISTORY. Had gonorrhoea Dec. 1914. Under treatment 2 months. 4 months ago had slight discharge which cleared up in a few days. Three weeks ago reappeared in considerable quantity.

examinations only give a broad indication of the source of the filaments; for more accurate indication of the site of the lesion a much more claborate examination would be necessary, which could hardly be undertaken as a routine with so many cases. I often sent filaments the the laboratory for bacteriological charination, but the results were almost invariably negative. The urines of all cases were examined previous to discharge to duty. Some 50% were clear in all portions. A number should a haziness or turbidity with no flakes and which did not clear on the addition of acetic acid; this was probably due to increased secretion from the succus sembrane in reaction to treatment, and not to the presence of gonococci. A few still showed an odu flake or two (free from GC by the bacteriologist's finding), and the exigencies of the services demanded that these men be returned to duty; it was out of the question to keep every case till the urine was free from flakes.

In the early days one was tather handicapped in dealing with these cases by the lack of a urethroscope, but later a Luys set was obtained, and proved very helpful.

GENERAL HYGIENE. In ordinary plain straight-forward cases the patient was put on hospital light diet and rested during the first four to seven days, while the bowels wereattended to. Rest did not mean absolute rest in ped, but freedom from outside fatigues of all kinds. The patient rose at reveille, made up his bed, shaved, and paraded at M.O.'s inspection. He underwent treatnent as ordered, then returned to his tent and lay down on his ped-pounds. (The ped was of the hard variety, three ped-

(19)

No. 50. ADMITTED. 27/7/15.

#### First attack.

HISTORY. Discharge 3 days after coitus, hospital 5 days later.

CONDITION AND TREATMENT. Much purulent discharge, till 5/8/15 H3 Succ. mg 40 given and 4 days later none.

REMARKS, Simple anterior urethritis.

DAYS IN HOSPITAL. 21. DETAILS. 4. TOTAL. 25. AFTER INJECTION. 17.

### No. 51. ADMITTED 22/8/15.

# Relapse(?).

HISTORY. Had gonorrhoea 1903 in Dublin. Treated 6 weeks in military hospital; dried up , but within a week reappeared. Dried up again in 2 months, and remained free from trouble till present condition which came on 6 days after coitus., and for which he was admitted 4 days later.

COMDITION AND TREATMENT. The prostate was enlarged on admission and so in addition to routine treatment he had it massaged. 23/3/15. Hg Succ. ng 40.after which the discharge cleared up quickly.

REMARKS. There were numerous shreds in the urine, especially the last drops, and a chronic enlargement of the prostate which seemed to have undergone an acute exascerbation, and which was again quiescent with an almost clear urine at the end of treatment

DAYS IN HOSPITAL. 8. DETAILS. 7. TOTAL 15. AFTER INJECTION. 14.

No. 52. ADIITTED. 27/7/15.

#### First attack.

HISTORY. Discharge 7 days after coltus, hospijal 13 days later.

donDITION AND TREATMENT. Markedly purulent, routine treatment. 5/3/15. Hg Succ. mg 40. 7/3/15 developed <u>acute prostatitis</u> The gland was large tender and boggy: swinging temperature: could not pass urine at first and had to be catheterised on three occasiona. He was treated by hot hip baths every 4 hours, and atropine and cocaine suppository twice daily, till the acute stage subsided, then gentle and gradually increasing massage on alternate days. 25/3/15 developed acute <u>epididymitis</u> treated by hot local paths 4 hourly, shaved, and 4 days later Scott's dressing strapped on; mist. Pot. Iod. t.d.s.. There was practically no swelling of the epididymis on discharge.

REMARKS. Complicated case which cleared up very well. The urine & still contained a few shreas but no GC at end of treatment.

DAYS IN HOSPITAL. 38. DETAILS. 9. TOTAL. 47. AFTER INJECTION. 39.

<u>No. 53</u>. ADMITTED. 2/8/15.

#### First attack.

HISTORY. Discharge 7 days after coltus, hospital 15 days later.

CONDITION AND TREATMENT. Some purulent discharge; foutine treatment. 5/8/15 Hg Succ. mg 40. Cleared up quickly, but developed slight watery discharge after going to details which soon disappeared with a few irrigations of Zinc Permanganate.

REMARKS. Simple anterior urethritis, and urine clear on discharg

DAYS IN HOSPITAL". 12. DETAILS. 13. TOTAL. 25. AGTER INJECTION. 22.

<u>No. 54</u>. ADMITTED. 27/7/15.

First attack.

HISTORY. Discharge 6 days after coitus, hospital 4 days later.

CONDITION AND TREATMENT. Purulent discharge; routine treatment: 5/8/15. Hg Succ. mg 40. and soon dried up, Zn Permang. 1/3,000 being used for irrigation finally.

REMARNS. Anterior urethritis. Urine clear on discharge to duty.

DAYS IN HOSPITAL. 19. DETAILS. 15. TOTAL. 34. AFTER INJECTION. 26.

No. 55. ADMITTED. 2/8/15.

### Second attack (2).

HISTORY. Had gonorrhoea 19 months ago-also a sore. Treated in the Western Infirmary for 2months. Present discharge14 days aftr coitus, and he was admitted to hospital 3 days later.

CONDITION AND TREATMENT. Much purulent discharge on admission, routine treatment. 5/8/15. Hg Succ. mg 60, after which the condition healed up quickly. The prostate was normal to palpation. REMARKS. This casee cleared up quite rapidly; urine free from shreds.

DAYS IN HOSPITAL. 17. DETAILS. 8. TOTAL. 25. AFTER INJECTION. 22.

<u>He. 56</u>. ADMITTED. 2/8/15.

First attack.

MISTORY. Duscharge 8 days after coitus, hospital 7 days later.

CONDITION AND TREATMENT. Marked purulent: routine treatment: 5/8/15. Hg Succ. mg.40. On the 9th day still slightly purulent on the 13th day clear. There were one or two shall nodules along the base of the bulpous urethra which kept the discharge going; they were massaged lightly against a moderate sized straight bougie, and the urethra was dilated with a Kollmann.

REMARKS. The cure was retarded by the involvement of the glands at the anterior end of the bulbous urethra. urine was almost clear at end of treatment.

DAYS IN HOSPITAL. 22. DETAILS 13. TOTAL. 35. AFTER INJECTION. 32.

No. 57. ADMITTED. 11/7/15.

Relapse.

CONDITION AND TREATMENT. From 11/7/15 till 22/8/15 had been treated by the ordinary routine, but had still some purulent discharge. 22/8/15 Hg Succ. mg.60. After this improved quickly going to duty 15 days later. The prostate was moderately enlarged and was massaged every other day. He also had an <u>epididymitis</u> which was treated by Bier's hyperaemia and Scott's dressing.

REMARKS. Complicated case, but very well on going to duty.

DAYS IN HOSPITAL. 49. DETAILS. 9. TOTAL. 58. AFTER INJECTION. 17.

<u>No. 58</u>. ADMITTED, 29/7/15.

First attack.

HISTORY. Discharge 6 days after connection. hospital 6 days later

CONDITION AND TREATMENT. Considerable purulent: routine treatmen fromadmission till 11/7/15 when Eg Succ. mg. 50 administered. After this was soon well. REMARKS. Simple uncomplicated anterior urethritis.

DAYS IN HOSPITAL. 24. DETAILS. 4. TOTAL. 28. AFTER INJECTION. 15.

No. 59. ADMITTED. 13/7/15. Relapse. MISTORY. Was treated at Newcastle-on-Tyne for 8 weeks.

CONDITION AND TREATMENT. Very purulent and given routine treatment till 21/7/15 Hg Succ. mg. 60. given, and discharge which was still purulent soon cleared up. He had some chronic enlargement of the prostate which was treated by massage on alternate days: a slight gleet proved rather troublesome from 24/7/15 till15/8/15.

REMARKS. Cure delayed by the prostatitis, urine clear at end of treatment.

DAYS IN HOSPITAL. 32. DETAILS. 5. TOTAL. 37. AFTERINJECTION. 29.

No. 60. ADMITTED. 14/7/15.

First attack.

HISTORY. Discharge commenced 7 days after coitus, hospital14 late

CONDITION AND TREATENT. Copious purulent discharge; routine treatment. 20/7/15. The purulent condition was soon replaced by a gleet which was very persistent. <u>Posterior urethritis</u> was present and the <u>prostate</u> was also involved. The latter was treated by massage, the former by periodic passing of curved bougies, Lister's, on 3/; 3/, 18/, 25/3/15, up to no. 11/14.

REMARKS. The urine which had contained a large number of medium and moderately large shreds and sinkers was almost clear at the end of treatment.

DAYS IN HOSPITAL. 25. DETAILS. 28. TOTAL. 53. AFTER INJECTION. 47.

No. 61. AD ITTED. 27/7/15.

# Relapse.

HISTORY. Discharge and Epididynitis 4 days before admission.

CONDITION AND TREATMENT. Slight purulent discharge given routine treatment: scrorum shaved and hot local baths to the epididymis. Later Scott's dressing, and Pot. Iod. gr.15 t.d.s. 20/8/15 Hg. Succ. mg.60. Duty 29/3/12. REMARKS.Had old epididymitis and a certain amount of Prostatitis on admission; rather persistent gleet. These cleared up with prostatic massage evry other day, and Pot. Iod. for the Epididymitis. Urine almost clear on discharge, no GC.

DAYS IN HOSPITAL. 34. DETAILS. C. TOTAL. 34. AFTER INJECTION. 11.

<u>No 62.</u> ADMITTED, 12/7/15.

First attack.

HISTORY. Discharge 7 days after coitus, Sospital 6 days later.

CONDITION AND TREATMENT. Much purulent, routine treatment. Was less when 20/7/15 Hg Succ. ng.60 given. 8 days later went to details whence he returned with very slight discharge which cleared up at once.

REMARKS. Simple Anterior urethritis; Urine clear on discharge.

DAYS IN HOSPITAL. 21. DETAILS. 14. TOTAL 35. AFTER INJECTION. 26.

No. 63. ADMITTED. 15/7/15

First Attack.

HISTORY. Discharge 5 days after coitus, hospital 8 days later.

CONDITION AND TREATMENT. markedly purulent, routine treatment. 21/7/15. Hg Succ. mg 60. On the 30th inst he developed marked frequency which soon disappeared on stopping the irrigations and putting him to bed. The prostate was enlarged and the posterior urethra involved. Later the prostate was massaged and the posterior urethra dilated.

REMARKS, <u>Posterior urethritis</u> . The urine was clear in all portions on discharge to duty.

DAYS IN HOSPITAL. 40. DETAILS. 9. TOTAL. 49. AFTER INJECTION. 43.

<u>No. 64</u>.

ADMITTED. 10/6/15.

First attack.

HISTORY. Discharge 4 days after coitus, hospital 3 days later.

-ion of the glands in groin. The prostate was enlarged and treated by massage.

RE LARKS. Developed persistent gleet: had also scabies.

DAYS IN HOSPITAL. 47. DETAILS. 25. TOTAL. 73. AFTER INJECTION. 31.

No. 65. ADMITTED. 2/6/15.

# First attack.

HISTORY. Discharge 3 days after coitus, hospital 5 days later, with marked warts on the glans and prepuce.

CONDITION AND TREATENNT. Furulent discharge and routine treat ment: AgNo- applied to warts. 13/3/15 Hg Succ mg60 given, i.e. more than 2 months after admission. The warts proved very intractable and were treated successively bynsilver nitrate, eusol and iodoform, and carbon dioxide snow. posterior urethritis.

RELARKS. Very chronic case.

DAYS IN HOSPITAL. 35. DETAILS, 51. TOTAL. 86. AFTER INJECTION. 13.

No. 55. ADMITTED. 1/8/15.

Re-infection (?)

HISTORY. Discharge 2days after coitus, hospital 6 days later.

CONDITION AND TREATEMNT. Markedly purulent; routine treatment. 5 days later Hg Succ. mg 60. The <u>prostate</u> was slightly enlarge on admission and was massaged on alternate days. There was also <u>posterior urethritis</u>.

REMARKS. The urine contained numerous shreds at the beginning of treatment, but was almost clear at the end.

DAYS IN HOSPITAL. 16. DETAILS. 20. TOTAL. 36. AFTER INJECTION. 34.

<u>No 67.</u>

AD.MITTED. 29/7/15.

Relapse.

HISTORY. Had gonorrhoea 4 months ago; under treatment 4 weeks and then to duty. Discharge reappeared 4 days ago.

CONDITION AND TREATMENT. Much purulent discharge: routine treatment. 3/3/15. Hg Succ. mg 6C. The prostate was involved and was treated by massage on alternate days.

REMARKS. The urine contained many shreds at peginning and had not quite cleared up at the end of treatment. No GC.

DAYS IN HOSPITAL. 21. DETAILS. 16. TOTAL. 37. AFTER INJECTION. 30.

<u>No. 68</u>. ADMITTED. 8/3/15.

Relapse.

HISTORY. Was discharged from hospital 29/7/15 and in a few days the condition made its reappearance. Had developed a few warts. His previous treatment had been by high doses of vaccine. 10/7/15 GC Vaccine 200 million.)

10/1/1	Juu	A MOONTETTO	200	and the stand of the for		
15/7/1	5	-00-	600	-40))	In Hospital	18 days
17/7/1	5	-do-	1000	-āo)		
20/7/1	5	-do-	1000	-do))	In Details	9 days.
22/7/1	5	-do-	1000	-āo)		

CONDITION AND TREATMENT. Much purulent discharge: routine treatment.20/3/15 still pus: Hg Succ. mg 60. Cleared up soon after this. The warts were touched with Ag NOz followed by Eusol and Iodoform, and disappeared fairly rapidly. <u>Prostate</u> was massaged every other day.

REMARKS. Urine was clear on discharge: no GC.

DAYS IN HOSPITAL. 27. DETAILS. 3 TOTAL. 30. AFTER INJECTION. 16.

<u>No. 69</u>. ADMITTED, 18/8/15.

First attack.

HISTORY. Discharge 7 days after coitus, hospital 5days later. Balanitis present .

CONDITION AND TREATMENT. Markedly purulent: routine treatment. 21/8/15. Hg Succa. mg 40. after which he was soon well. The balanitis was treated by washing with 1/8000 Hydrarg. Perchlor. and a tear in the frenum by Eusol and Iodoform dressing.

REMARKS. Anterior urethritis: urine clear on discharge.

DAYS IN HOSPITAL. 27. DETAILS. O. TOTAL. 27. AFTER INJECTION. 24.

# (27).

<u>No. 70</u>. ADMITTED. 10/8/15.

#### First attack.

HISTORY. Discharge 6 days after coitus: hospital 6 days later.

CONDITION AND TREATMENT. Purulent discharge: routine treatment. 22/3/15 ( 11 days after admission ) slight purulent discharge, Hg Succ. ng 40. after which rapid healing.

REMARKS. Anterior urethritis, and urine clear on discharge.

DAYS IN HOSPITAL. 16. DETAILS. 2. TOTAL. 18. AFTER INJECTION. 6.

No. 71. ADMITTED. 4/6/15.

# First attack.

HISTORY. Discharge 7 days after coitus, hospital 21 days later.

CONDITION AND TREATMENT. Much purulent discharge. routine treatment. 21/7/15 when discharge was slight and purulent Hg Succ. mg 60 given. Had developed <u>Epididymitis</u> 28/6/15 which had local hot baths fot 3 days followed by Scott's dressing and KI gr 15 t.d.s. <u>Prostatitis</u> treated by massage.

REMARKS. Had a complicated course, but finally cleared up well with the urine clear in all portions.

DAYS IN HOSPITAL. 70. DETAILS. 4, TOTAL. 74. AFTER INJECTION. 26.

No. 72. ADMITTED. 17/8/15.

Relapse.

HISTORY. Came in on account of <u>Epididymitis</u> which appeared 7 days before. Previously admitted 12/6/15 and treated by irrigation and vaccine, in hospital 46 days, and details 6 days.

CONDITION AND TREATMENT. Markedly purulent, routine treatment. 22/8/15 Hg Succ. mg 60. For the Epididymitis Shaved and Scott's cressing applied. Mist. Pot. Iod. t.d.s. Had <u>slight prostatitis</u>.

REMARKS. Condition cleared up rapidly and well.

DAYS IN HOSPITAL. 19. DETAILS. 6. TOTAL. 25. AFTER INJECTION. 20.

No. 73. ADMITTED. 23/3/15.

First attack.

HISTORY. Discharge 4 days after coitus, hospital 2 days later.

JONDITION AND TREATMENT. MUCH PURULENT DISCHARGE. routine treataent.29/8/15 Hg Succ. mg 40. The discharge dried up very quickly. REMARKS. Simple anterior urethritis.

DAYS IN HOSPITAL. 9. DETAILS, 4. TOTAL. 13. AFTER INJECTION. 12.

<u>No. 74</u>. ADMITTED. 8/10/15.

Relapse (?).

HISTORY. Had gonorrhoes 10 years ago, and denies exposure to infection during the last 12 months.

CONDITION AND TREATMENT. Very much pus. Routine treatment. 22/8/15 Hg Succ. mg 40. Improved rapidly. GC in discharge were few from the outset.

REMARKS, Urine clear on discharge.

DAYS IN HOSPITAL. 26. DETAILS. 5. TOTAL. 31. AFTER INJECTION. 17.

No. 75. ADMIETED. 27/7/15.

First attack.

HISTORY. Discharge 6 days after coitus, hospital 4 days later.

CONDITION AND TREATMENT. Purulent discharge. Routine treatment. 5/8/15. Hg Succ. mg 40. after which was soon well.

REMARKS. Was sent to details with a gleet on account of overcrowding in the hospital.

DAYS IN HOSPITAL. 16. DETAILS. 16. TOTAL. 32. AFTER INJECTION. 23.

<u>No. 76</u> ADMITTED. 3/8/15. F

Relapse.

HISTORY. Treated for conorrhoea 3 years ago by a private doctor. Was under treatment for 2 months and dried up completely. One month later discharge reappeared and was complicated by <u>Epididymitis</u>. He was treated at Rochester Row for two monthe, beginning Aug. 1914: He relapsed in Dec. and was again under treatment two months. He relapsed once again after going to duty, and was this time treated in No.-- Stat. Hosp. from 3/7/15 till 29/7/15 by vaccine in large doses.

CONDITION AND TREATMENT. Slight purulent discharge, routine treatment. The <u>prostate</u> was distinctly involved and was massaged every other day. There was also <u>posterior</u> <u>urethritis</u>. 2C/8/15 Hg Succ. mg 60.

REMARKS. She repeated relapses in this case were probably due to a chronic involvement of the prostate and were of genoccal nature. Some hidden focus there seemed to be stirred up by any sexual or alcoholic excitement, for there was a history of one or the other associated with each relapse. This focus seemed to discharge a few GC into the urethra on these occasions, and a urethritis was set up which did not last very long. There was no marked Littritis.

DAYS IN HOSPITAL. 15. DETAILS. 11, TOTAL. 26. AFTER INJECTION. 9.

(29)

#### No. 77.

ADMITTED. 23/8/15.

First attack.

HISTORY. Discharge 10 days after coitus, hospital 6 days later.

CONDITION AND TREATMENT. Much purulent discharge, routine treatment. 24/3/15. Hg Succ. mg 40., after which the discharge rapidly disappeared. There were no complications.

REMARKS. Simple anterior urethritis.

DAYS IN HOSPITAL. 17. DETAILS. 5. TOTAL. 22. AFTER INJECTION. 21.

No. 78. ADMITTED. 27/7/15.

Relapse.

CONDITION AND TREATMENT. Slight purulent discharge, routine treatment. Some <u>prostatitis</u> for which massage evry other day. 20/8/15 Hg Succ. mg 60. There was very little discharge up till 17/8/15 h when pus appeared in moderate quantity. this did not remain long after the injection.

REMARKS. Nil in urine on going to duty.

DAYS IN HOSPITAL. 3. DETAILS. 31. TOTAL. 34. AFTER INJECTION. 10. No. 79. AD HITTED. 3/8/15.

# First attack.

HISTORY. Discharge 8 days after coitus, hospital 6 days later.

CONDITION AND TREATMENT. Much purulent discharge, routine treatment. 9 days later still purulent given Hg Succ. mg 40. and then quickly dried up.

RELARKS. Anterior urethritis; urine clear on going to duty.

DAYS IN HOSPITAL. 28. DETAILS. 9. TOTAL. 27. AFTER INJECTION. 17.

No. 80. ADMITTED. 16/6/15.

Relapse.

HISTORY. Treated in No-- Stat. Hosp. twice previously:- 28/3/15 till 30/4/15, and 3/5/15 till 19/5/15.

CONDITION AND TREATMENT. Purulent discharge onadmission; 7 days later developed <u>acute prostatitie</u>, with extreme pain, frequency and temperature for three days ranged from 100-103.2 degrees F. The condition was treated by hot hip baths and rest in bed: it was also necessary to give a morphia suppository for the relief of pain on two occasions. At the end of 14 days he had sufficient -ly recovered to have light massage to the prostate and later the weight of the massage was increased. Discharge containing GG was by this means produced for weeks. 13/3/15 Hg Succ. mg 60. but almost a month elapsed after this before he was fit.

REMARKS. Urine still contained a few shreds but no GC at the end of treatment.

DAYS IN HOSPITAL. 84. IN DETAILS. 5. TOTAL. 89. AFTER INJECTION. 31.

No. 81. ADMITTED. 13/7/15.

First attack.

HISTORY. Discharge 7 days after coitus, and three days later hosp.

CONDITION A D TREATMENT. Markedly purulent.routine treatment. 21/7/15 ( 3days later when discharge was slight ) Hg Succ. mg 60 He developed a <u>soft infiltrate</u> near the meatus which was treated by dilatation - Kollmann's straight 35= 35= 37= 37, every 3rd day, and resolved.

REMARKS. Haa to be sent to details too soon, and was perhaps delayed a little by that.

DAYS IN HOSPITAL, 11. DETAILS. 39. TOTAL. 50. AFTER INJ. 42.

No. 82. ADMITTED. 20/3/15.

Relapse.

HISTORY. Was admitted with Rheumatism of a chronic type.

CONDITION AND TREATMENT. Both knees and ankles involved. Pus from urethra. Treated by irrigation and injection the following solutions being used: Potassium permanganate, Zinc Permanganate, Zinc Sulphate, Silver Nitrate. Had also bougies and vaccine in graduated doses from 100 to 1000 millions. Finally given Hg Succ. 15 60, and soon after was sent to duty. The prostate was massaged every other day for many weeks.

REMARKS. An exceedingly chronic case with prostatitis, posterior urethritis with ulceration, and <u>rhounatism</u>. It must be stated that he was well on the way to recovery when the Hg Succ. was administered.

DAYS IN HOSPITAL. 114. DETAILS. 24. TOTAL. 136. AFTER INJECTION. 11.

No. 83. ADMITTED. 27/7/15.

First attack.

HISTORY. Discharge 8days after coitus, hospital 7 days later.

CONDITION AND TREATMENT. Marked purulent discharge, routine treatment. Discharge remained more or less purulent till injection of Hg Succ. mg40 on 11/3/15. Then cleared up fairly rapidly. Slight <u>enlargement of the prostate</u> which was massaged.

REMARKS. Urine was clear before patient sent to duty.

DAYS IN HOSPITAL, 21. DETAILS. 13. TOTAL. 34.

No. 84. ADMITTED. 27/7/15. Fi:

First attack.

HISTORY. Discharge 4 days after coitus, hospital 11 days later.

CONDITION AND TREATMENT. Purulent discharge in considerable quantity, routine treatment. still purulent when Hg Succ. 1340 given, 5/8/15. 11 days later nil.

REMARKS. No complications; urine clear on discharge.

DAYS IN HOSPITAL. 21. DETAILS. 16. TOTAL. 37. AFTER INJECTION. 23. <u>No: 35</u>. ADMITTED. 14/7/15.

First attack.

HISTORY. Discharge 7 days after coitus, hospital 3 days later ith <u>Epidldymitis</u>.

CONDITION AND TREATMENT. Purulent discharge and fairly acute epididymitis for which shaving and hot local baths at first and later Scott's dressing strapped on. The condition was gradually improving up to the time of the injection of Hg Succ. mg 40, 13/8/15, after which he improved rapidly.

REMARKS. Urine still had a few 'commas', but no 40 on discharge.

DAYS IN HOSPITAL. 42. DETAILS. 11. TOTAL 53. AFTER INJECTION. 24.

<u>NO.86.</u> ADMITTED. 22/8/15.

First attack.

HISTORY. Discharge 7 days after coitus, hospital 6 days later.

CONDITION AND TREATMENT. Marked puralent discharge, routine treatment. 23/8/15 Hg Succ. mg 40. Cleared up very quickly.

RELARKS. Alld anterior urethritis.

DAYS IN HOSPITAL. 13. DETAILS. 6. TOTAL. 19. AFTER INJECTION. 18.

No. 37. ADMITTED. 1/8/15. Relapse.

HISTORY. Admitted with <u>Acute Prostatitie</u>, complaining of marked pain in the 'crutch', frequency, and passage of a drop of plood at the end of micturition.

CONDITION AND TREATMENT. Prostate markedly enlarged and tender, purulent discharge. Hot hip baths and morphia suppositories. 14 days later commenced light massage, after he had been ahving irrigation for a week. 20/8/15 Hg Succ. mg60. Improved quickly after this and went to duty about a month later.

REMARKS. Urine was almost clear on discharge.

DAYS IN HOSPITAL. 41. DETAILS. 11. TOTAL. 52. AFTER INJECTION. 33.

No. 88. ADMITTED. 20/9/15.

First attack.

HISTORY. Discharge and balanitis appeared 14 days ago.

# No. 88. (contd)

CONDITION AND TREATMENT. Marked purulent discharge and swelling of the propuce with ulceration of its mucous membrane. The latter gradually cleared up with saline dressings and washing out the preputial sac with 1/8000 Perchloride of Mercury. It outlasted the gonorrhoea, however. 25/9/15 Hg Succ. mg 60.

REMARKS. One of the ulcers on the prepuee was rather suspicious and indurated, but dark-ground and later Wassermann proved negative.

DAYS IN HOSPITAL. 26. DETAILS. 21. TOTAL. 47. AFTER INJECTION. 41.

No. 85.

ADMITTED. 8/9/15.

First attack.

HISTORY. Discharge 3 days after coitus, hospital 4 days later.

CONDITION AND TREATMENT. Much pus, routine treatment. 9/9/15, Hg Succ. xg40. For a period he was tried on no irrigation but at the end cleared up rapidly on permanganate.

REMARKS. Anterior Urethritis.

DAYS IN HOSPITAL. 37. DETAILS. C. AFTER INJECTION. 36.

No. 38.

ADMITTED. 13/9/15.

First attack.

HISTORY. Discharge 7 days after coit is, hospital 5 days later.

CONDITION AND TREATMENT. Very much purulent discharge, routine treatment. 14/9/15 Hg Succ. mg40, and 1/10/15 Hg Succ. mg 60.

REMARKS. Two doses Hg Succ., interval 17 days.

DAYS IN HOSPITAL. 33. DETAILS. C. AFTER INJECTION. 33.

<u>No. 91</u>. ADMITTED. 26/7/15. Firs

First attack.

HISTORY. Discharge 14 days after coitus, Hospital 4 days later.

CONDITION AMD TREATMENT. Marked purulent discharge, routine treatment. Was not given injection till 18 days later when only 91. (contd) small amount of discharge. After this he was quickly petter.

REMARKS. He had some prostatitis which was treated by massage. Urinehad contained a number of shreds which were almost gone when he went to duty. Three days after going out he relapsed and was readmitted with a slight discharge; this cleared up quickly by irrigation and prostatic massage.

DAYS IN HOSPITAL. 38. DETAILS. C. AFTER INJECTION. 20.

# No. 92. 13/9/15.

# Reinfection.

HISTORY. Discharge 4 days after coitus, hospital 5 days alter. Had gonorrhoea in 1896 while in the navy, and again in 1898, since when he has been completely free from discharge.

CONDITION AND TREATMENT. Considerable purulent discharge, routine treatment. 14/9/15. Hg Succ. hg 60. The prostate was very large and he had massage every other day.

REMARKS. The urine had many shreds on admistion, but it was free from them on discharge. He was treated for the first attack for 5 weeks by permanganate and copaiba, and cleared up in 5 weeks.

DAYS IN HOSPITAL. 34. DETAILS. 9 AFTER INJECTION. 33.

# No. 93. ADMITTED. 12/9/15.

Relapse.

HISTORY. Discharge appeared 2 weeks ago, and he denies any recent connection. He had gonorrhoea in Arril.

CONDICION AND TREATMENT. Markedly purulent, routine treatment. 13/9/15. Hg Succ. mg 60. Prostatic massage every other day.

REMARKS. In April discharge commenced a few days after coitus, and he treated himself bymedicine, syringing only on one occasion. The discharge continued for two weeks, but disappeared after that.

DAYS IN HOSPITAL. 41. DETAILS. C. AFTER INJECTION. 40.

<u>No. 94</u>. ADMITTED. 7/9/15.

First.attack.

HISTORY. Discharge 10 days after coitus; has been treating himself

94. (contd)

CONDITION AND TREATMENT, much purulent discharge. routine treatment. 8/9/15. He Succ. mg 60. The condition of the urine and a frequency of micturition seemed to indicate some posterior urethritis, but there was no enlargement of the prostate. Commas were present in the urine in varying amount at different times, a few remaining on discharge to duty, free from GC.

REMARKS. Had Posterior urethritis.

DAYS IN HOSPITAL. 39. DETAILS. C. AFTER INJECTION. 38.

No. 95. ADMITTED. 15/8/15.

First attack.

HISTORY. Discharge 6 days after coitus: next day developed Epididymitis and was admitted 4 days later.

CONDITION AND TREATMENT. Marked purulent discharge and considerable swelling of the epididymis. Routine treatment; shaved and hot local baths to the affected epididymis, with suppository of cocaine and atropine at night. Later Scott's dressing applied & Mist Pot. Iod. t.d.s. Had returned almost to normal in 10 days. A few days later <u>acute prostatitis</u> supervened which was treated at the outset by hot hip baths and later by nassafe; had marked pain, extreme frequency, and fever during the acute stage.

REMARKS. Urine contained numerous shreds after the prostatic trouble, and some were still present at the end of treatment but no GC.

DAYS IN HOSPITAL. 69. DETAILS. C. AFTER INJECTION. 41.

<u>No. 96</u>. ADMITTED. 14/9/15.

First attack.

HISTORY. Discharge 9 days after coitus, hospital 6 days later.

CONDITION AND TREATMENT. Markedly purulent, routine treatment. 15/9/15 Hg Succ. mg 50. and 7 days later the same dose. On 3rd day discharge was slight remained as a gleet for several weeks.

REMARKS. Urine free from shreds on discharge to duty.

DAYS IN HOSPITAL. 38. DETAILS. 4. TOTAL. 42. AFTER INJECTION. 41. No. 97. ADMITTED. 28/9/15.

### First attack.

HISTORY. Discharge 4 days after coitus, and 2 days later he developed coldidymitis peing admitted 2 days later.

CONDITION AND TREATMENT. Much purulent discharge, routine treatment. 29/9/15 Hg Succ mg. 50, the dose being repeated 7 days later. The epididymitis was treated by shaving, hot local baths, followed in 2 days by Scott's dressing strapped, and it was soon well.

RELARIS. Anterior urethritis: two doses of Hg Succ. with an interval of 7 days, and no local reaction.

DAYS IN HOSPITAL. 23. DETAILS. C. AFTER INJECTION. 22.

No. 98. ADMITTED. 5/10/15.

First attack.

HISTORY. Discharge 3 days after coitus, hospital 7 days later.

CONDITION AND TREATMENT. Profuse purulent discharge, routine treatment. 6/10/15, Hg Succ. mg 50. Cleared up rather slowly, and on 31/10/15 dase-repeated.

REMARKS. 2 doses; interval 25 days.

DAYS IN HOSPITAL. 35. DETAILS. O. AFTER INJECTION. 34.

No. 99. ADMITTED. 16/9/15.

First attack.

HISTORY. Discharge 6 days after coitus, hospital 4 days later.

CONDITION AND TREATMENT, Profuse purulent discharge, routine treatment. 17/9/15. Hg Bucc. ng 50. Improved rapidly at first, u but about 6/10/15 became slightly purulent again, so 8/10/15 Hg Succ. m. 50. after which soon well.

REMARKS. 2 doses; interval 21 days. Had Posterior Urethritis.

DAYS IN HOSPITAL. 30. DETAILS. 7. AGTER INJECTION. 36.

# (37).

No. 100. ADMITTED. 28/9/15.

First attack.

HISTORY. Discharge 3 days after coitus, hospital 5 days later.

CONDITION AND TREATMENT. Marked purulent discharge, routine treatment. 29/9/15. Hg Succ. mg 50. An equal dose given 3 days later. Healed up rapidly.

REMARKS, Anterior urethritis: Urine clear on discharge.

DAYS IN HOSPITAL. 23. DETAILS. C. AFTER INJECTION. 22.

-- FINIS --