the salvarsan suggests a possible infectious origin for herpes zoster.

Glucose as a Diuretic in Edema of Eczema. Ch. Laurent[7] reports excellent results from the intravenous injections of a 30 per cent. solution of glucose. The patient was a young man with a markedly inflammatory eczema and edema of the lower extremities. The total amount of urine for 24 hours averaged 750 c.c. After injection of 250 c.c. of the solution, the urine increased to 1,200 c.c., then fell to 800 c.c. A second injection of 500 c.c. sent the total volume to 1,800 c.c., then 2,800 c.c., 3,600 c.c., and finally back to 3,000 c.c., where it continued for two weeks.

There was no reaction and no glycosuria after the injections. The edema rapidly disappeared, and the eczema healed in a short time with the aid of local applications of a tar ointment.

Implantation of Hair. Havas,[8] in reviewing the various methods for implantation of hair, says none can be taken seriously except that of Szèkely. This procedure, however, gives a good cosmetic result, is practicable, and fairly rapid; in a half-hour sitting 500 hairs may be put into place.

A fine gold wire, 0.05 mm. in diameter, is looped to form a minute hole large enough for the hair, which is passed through the eye until the two ends are equal. The gold wire is doubled upon itself and passed through a Pravaz needle until the free ends emerge. These ends are then bent back against the sides of the needle and cut off, leaving about 2 mm. hooklets on either side. The needle is then thrust obliquely into the skin and withdrawn, leaving the hair anchored in the skin by the hooklets.

Strict asepsis must be maintained or the hooklets will slough away.

(7) Bull. Soc. fran. Derm. Syph., April, 1914.
(8) Arch. Derm. Syph., May, 1914.

GONORRHEA.

Vulvovaginitis in Children. The importance of gonorrheal vulvovaginitis in children lies not merely in the physical discomfort and occasional serious complications resulting therefrom, but in the moral shock produced on the child and the family by the occurrence of this loathsome disease in the midst of the innocence of infancy and childhood. Possibly because it occupies a sort of midway position between pediatrics and gynecology, few specialists have given this disease the serious consideration it merits. The epidemics of vulvovaginitis that have from time to time invaded children's hospitals and institutions have aroused pediatricians to the contagiousness of this infection. The profession at large has not, however, seemed to realize that a condition so contagious in institutions must also be frequently transmitted from child to child, or through some other agency, outside of such hospitals and institutions. Particularly in schools, in tenements, in public playgrounds, or wherever children congregate in considerable number, and the same lavatories and towels may be used, we have conditions favoring infection. That the disease is far commoner than was formerly supposed is being generally recognized. Taussig[1] studied sixty-six institutional cases in St. Louis. In the Children's Hospital Dispensary of that city it occurred in 5.3 per cent. of the cases examined. Seippel estimates the number of cases occurring annually in Chicago at 500. Pollock believes that from 800 to 1000 girls are yearly infected in the city of Baltimore.

For practical purposes, vulvovaginitis should be termed gonorrhea. A correct appreciation of the etiologic factors can only be obtained by considering the anatomy and histology of the lower genital tract in girls before puberty. Why is it that we find these infections not transmitted to little boys or to girls beyond puberty or to adults? The gonococcus grows most rapidly on delicate squamous or cylindrical epithelium. Such delicate epithelium is found about the vulva and vagina in little girls, whereas in adults the epithelium is much

(1) Amer. Jour. Med. Sci., October, 1914.

denser and more resistant. Unfortunately, the external genitals of girls are, so to speak, bare and everted before puberty, offering the best possible nidus for infection. With the increase in size of the labia majora, and above all the development of a hairy covering at puberty, the vestibulum vaginae is shielded from direct contact with the outside.

In analyzing the possible causes of this infection one must consider first the source, and secondly the manner of transmission. The first question is whether the parents are the source of infection. Investigation showed that a large majority of these parents had had two or more children, that the mothers in only a few cases gave a history of a discharge, and that when a vaginal examination was made it was usually negative. In two instances, however, the mothers showed an acute gonorrhea preceding the infection in the child, and here she was probably the infecting agent. Other possible sources of infection are older brothers and sisters, other persons living in the same house or using the same lavatory and, finally, other already infected girls of the same age. The last-named focus of infection is the most important factor in the spread of the disease.

In the study of the mode of transmission, in only four children did the question of rape come up for consideration. In no case was there any external injury indicating this as likely. In one instance the mother accused a boy of sixteen as being responsible for the infection. He was arrested and an examination showed that he had not the slightest evidences of gonorrhea. German writers lay some stress on the superstition among the lower classes abroad that an adult infected with gonorrhea can be cured by transmitting it to some innocent child. In none of the cases did this seem a probable explanation.

Etiologic studies of the epidemics in children's hospitals indicate that the hand of the nurse may at times be a factor in the transmission of the infection. The small percentage of mothers, however, who had a gonorrheal infection has already been noted. Even stronger evidence against this manner of infection lies in the fact that only two of the cases occurred in children under

one year of age, at which time the epithelium is most delicate and susceptible to infection, and the mother a dozen times a day is compelled to handle the genitals of the child. The relative absence of infection during these first twelve months speaks strongly, therefore, against the frequency of this manner of transmission.

The rôle played by soiled linen is negligible, inasmuch as the gonococcus is extremely susceptible to drying. The bath is a possible means of transmission, but in institutions sufficient precautions are, or should be, taken to minimize the danger, and in the tenements the infrequency of bathing is well-recognized.

The stool, however, is a factor favorable for spreading this infection. Secretion containing gonococci deposited here will, owing to the moisture of the surrounding air, remain a long time undried and virulent. Moreover, stools, even in grammar schools, are, as a rule, so high that the smaller children in using them are forced to have their genitals and clothing rub over a considerable portion of the seat. The greater the number of persons using the same stool, the less interval of time is apt to elapse between its use, and hence the greater likelihood of carrying infection. The stool of the tenement-house districts is hence a source of great danger for little girls, particularly when it is rough or unclean. In the public schools, where at recess there is practically no interval in the use of the stool, the danger is even greater. Of course, if all the infected girls could be prevented from attending school, the danger would be eliminated. It was found, however, that a number of girls did not seek medical advice until after a profuse discharge had been present for several weeks, and that a number of lighter infections passed unrecognized and untreated for months. With the open formation of the genitals in girls and the unnatural high seat of the stool, it is impossible for an infected child to avoid contaminating the seat with some of her discharge.

From the figures given it can be fairly said that the most frequent source of infection is from child to child, and that the most common manner of its transmission is through the school lavatory. This is in no wise a re-

flection on the cleanliness of the public schools, but merely the result of special factors predisposing to contagion.

While no portion of the city was exempt from this infection, not even the fashionable parts of town, a majority of the families were of the poorer classes and lived in cramped quarters. Only eleven of the sixty-six were colored girls. In the poorer homes and tenements there was usually one stool for the whole building, used by everyone, and at times in bad condition. It was also common to find that the infected child slept with the mother or with a brother or sister.

Symptoms. Few of the girls had pronounced discomfort. In the acute stage there was some increased frequency and burning on urination and a vaginal discharge. Usually, however, it was the mother who first noticed a yellowish stain on her child's clothing. Some children had a temporary enuresis during the active stage. At times the child would complain of feeling chafed. The course of the disease was almost invariably prolonged. Complications occurred rarely. Twice there was a gonorrheal proctitis, resulting from the use of an infant syringe for constipation. One patient had an attack of severe abdominal pain with fever and tenderness lasting one week, which in all likelihood was due to a tubal involvement. Two girls developed ophthalmia, and one of these two likewise had arthritis.

Treatment. So unsuccessful have been most of the methods of treatment suggested that some believe as much can be accomplished by simply leaving the case alone. Much, however, can be done by improving the general health of the patient. In the acute infections, rest in bed, preferably in a hospital, supplemented by instillations of 25 per cent. argyrol, give the best results. This should be supplemented by hexamethylenamin, gr. i to iv, three times a day. Vaccines were found to be of no value.

No results were obtained from the vaginal insertion of cultures of lactic-acid bacilli.

Prognosis. The results of treatment are difficult to judge, because of the impossibility of saying whether a

case is cured or not. The results of Dr. Smith's complement-fixation tests indicate that even with this test we are at a loss to say positively when a cure is effected. This is, however, very different from denying the possibility of cure. Mattisohn has shown that even without active treatment eighteen out of thirty-one girls, after a period of two to five years, showed no discharge or gonococci, and that with active treatment about 75 per cent. should be cured in from three to four months.

Preventive measures are recommended as follows:

1. The examination of a vaginal smear from all girls before admission to determine the presence of gonorrheal infection. If present, the children are excluded.
2. Adequate facilities for isolating institutional children with this infection in whom the diagnosis had not been made on admission.
3. Special nurse, separate fever thermometers, and vaseline for the infected children.
4. The instillation of a drop of 2 per cent. silver nitrate solution in the vestibulum vaginae of all newborn girls whose mothers show evidence of gonorrhea.
5. Making vaginitis in children a disease reportable to the board of health.
6. Instruction of parents of infected children through the visiting nurse regarding preventive measures to limit the infection.
7. Investigation by the visiting nurse as to the probable origin of the infection in each case with a view to excluding this factor from contaminating other children in the same house.
8. The adoption of a U-shaped seat with low bowl and other precautionary measures to prevent the spread of infection through the public lavatories in schools, playgrounds, comfort stations, and tenements.

Venereal Disease in Wartime. Blaschko[2] remarks that down into the eighteenth century an army of prostitutes regularly accompanied every army in active service, sometimes outnumbering the troops. "But this army of female camp-followers," he continues, "did not become a hygienic danger until at the end of the sixteenth cen-

(2) Deutsche med. Wochenschr., October 1, 1914.

tury syphilis swooped down on the troops and has been at home throughout Europe ever since. The introduction of the system of compulsory military service altered all this, but even Napoleon was unable to prevent hordes of female camp-followers from accompanying his army in the campaign into Russia, and in the recent Russo-Japanese War the Russians, especially the officers, were accompanied by some.

"Although the present war is far graver than any of the wars in previous centuries, yet we must accept the possibility of a great increase in venereal diseases. The men left in charge of a conquered city are particularly exposed to this danger. In some the brothels have been closed, but in other cities, where people still believe in the hygienic efficacy of these institutions, they are flourishing more than ever. But conditions are not much safer even where there are no brothels. I have seen here in Berlin a number of cases of recently acquired gonorrhea and syphilis among the troops, and the number of reservists who were found healthy on joining the colors and who have already been sent back from the front for treatment of gonorrhea acquired since, is larger than is generally supposed.

"During the last half of the Franco-Prussian War, venereal diseases formed 9 per cent. of all the morbidity. It is self-evident that men with fresh gonorrhea are unable to go on marching or fighting.

"In peace, regulation of prostitutes does not accomplish much, but the strict measures that can be enforced under exceptional conditions, as during a campaign, may be of the greatest utility. Absolute prohibition of public dances, and the early or total closing of saloons, will help and extreme care must be taken to weed out any loose women who may attach themselves to the army in the guise of nurses. The hygienist accompanying the corps must have previously informed himself as to the conditions regarding prostitution in each district the corps enters.

"Many physicians regard it as impossible to prohibit entirely to the troops all intercourse with prostitutes. But this is absolutely false, according to my opinion.

. . . Keeping secret a beginning venereal disease justifies punishment."

Blaschko remarks in conclusion that the many women deprived of their livelihood now by the shutting down of factories, present a particularly serious danger, and that it behooves the authorities to provide employment for them in some way, or at least food and shelter. Well-to-do women who serve gratuitously from patriotic motives in preparing articles to be sent to the soldiers, would better ponder whether it would not be better to set some of the unemployed at the task and pay them for it. He protests against the exclusion of cases of venereal disease from the hospitals, to make room for wounded soldiers, as has been done in some quarters, calling it a very short-sighted policy, which will bring retribution later.

Complement-Fixation in Gonococcus Infections. About 60 per cent. of all cases of gonococcus infections investigated by Kolmer and Brown[3] reacted positively to the gonococcus complement-fixation test. In the few cases of pyosalpingitis examined, 66 per cent. reacted positively. The highest percentage of positive reactions, 83 per cent., occurred in cases of arthritis, considered clinically as possible gonococcus infections. The authors regard the gonococcus complement-fixation test as of particular value in aiding the diagnosis of the nature of an obscure arthritis, in pelvic inflammatory diseases of women, to deciding whether or not a given case of urethral infection is cured or still harbors foci of living gonococci, and aiding in the diagnosis and management of vaginitis in female children.

The reactions are not generally so satisfactory as those occurring in the syphilis reaction, because the quantity of gonococcus antibody is much smaller unless grave and wide-spread gonococcus metastases exist, and the fixation of complement by bacterial amboceptor and antigen is not so marked as that occurring with syphilis reagin and a lipoidal extract. In a comparative study of a number of serums tested with both the antisheep and antihuman hemolytic systems slightly better results

(3) Jour. Inf. Dis., July, 1914.

were secured with the latter. Gonococcus antigens to be of any value must be polyvalent. An antigen composed of a simple suspension of organisms in saline solution yielded 11 per cent. better reactions than filtrates. It appears that the bacterial protein, aside from the endotoxins, aids in the antigenic effect. Alcoholic extracts of gonococci possess little or no value. The occurrence of positive reactions in about 9 per cent. of cases of chronic gonococcus infections with antigens of staphylococci, streptococci and diphtheroid bacilli, indicates the active rôle these organisms may assume in these infections. The occurrence of about 5 per cent. positive reactions with an antigen of the *Micrococcus catarrhalis* would indicate that this organism may be likewise active in chronic urethritis.

A study of antigonococcus and antimeningococcus sera with antigens of gonococci and meningococci, indicates the close biologic relationship of the gonococcus and meningococcus, and while their respective amboceptors are most specific for their own antigens, in lower dilutions this specificity is not so apparent, and the results constitute another example of "group" reaction similar to those occurring with the group of streptococci, diphtheria bacilli and spirochetes.

Treatment of Recently Acquired Gonorrhea. Merk[4] gives the patient a set of vials each containing a mixture of 0.03 gm. silver nitrate and 0.025 gm. potassium permanganate in pulverized form. When ready to use, this is stirred into 0.25 liter of freshly boiled tap water. No syringe is used, merely a catheter No. 9, French, with two openings at the tip and a flaring outer end. The fluid, still as hot as it can be borne by the urethral mucosa, is drawn up into a rubber bulb and then forced out into the funnel opening of the catheter. It thus rinses out the urethra from the rear, and large amounts of fluid can be used. If the tap water contains salts that precipitate the silver nitrate, he varies the amount in the vials to correspond. The procedure is repeated three or four times a day, and the whole technique is so extremely simple and easy that the patients apply it

(4) Med. Klinik, July 26, 1914.

systematically and seldom shirk. Merk describes the biologic and chemical factors involved in the action of silver nitrate and shows how none of the would-be substitutes shares its truly potent properties, and how the claims made for some of the proprietary substitutes exalt into alleged advantages what are really drawbacks.

Gonorrheal Involvement of the Prepuce Cured by Excision. M. Zigler[5] reports the cure by excision of a chronic gonococcus infection of the prepuce.

The patient, aged 20, had contracted gonorrhea three years previously. Three weeks after the first attack he noticed an area of redness on the under surface of the prepuce, which on pressure exuded pus from several points. Numerous antiseptic solutions were used to heal this lesion, with negative result. Escharotics were tried, without success. After several unsuccessful attempts to induce the inflammatory process to heal by other means, the surgeon in charge laid it open by a longitudinal incision through its entire length. Two months after operation the affected area was slightly improved; that is, it was still red and inflamed, but there was no oozing of pus, and only an occasional watery (serous) discharge, which continued until about one month before he came under Zigler's observation, when it had again become purulent.

Examination of the patient showed a long prepuce on the anterior surface of which, ½ inch from the tip, extending in the long axis of the penis, was a linear lesion, about 1 inch in length, and ¼ inch in width, somewhat raised above the level of the surrounding skin, reddish and which felt like a cord or a thread under the skin. Yellowish-white pus could be expressed from three distinct points, one of which was at the tip near the distal end of the penis, the second in the middle of the lesion, and the third at the proximal end. When probed, the points were found to be superficial.

The pus, examined microscopically, was found to be composed of polynuclear leukocytes, a considerable number of which contained Gram-negative cocci, typical of

(5) Jour. Amer. Med. Ass'n., March 7, 1914.

the gonococci in their morphologic characteristics and arrangement within the cell.

Placed on rabbit-blood agar and ascitic-fluid agar it showed, after twenty-four-hour incubation, numerous small grayish-white colonies, which, on microscopic examination, proved to be Gram-negative cocci. Transfers from these colonies on ascitic agar grew with the characteristic appearance of the gonococcus. Therefore, microscopically and culturally, the organism was assumed to be a gonococcus.

The organism was subsequently identified as the gonococcus by the complement-fixation test.

A strong antiseptic wash of full strength hydrogen peroxid locally, and later mercuric chlorid solution, 1 to 1,000, for several weeks were used, but the lesion failed to heal. Circumcision was then decided on, but careful examination of the lesion showed that it extended backward beyond the corona, and Zigler was therefore afraid that so much of the prepuce would have to be removed that later a curvature of the penis might occur during erection. A more conservative plastic operation was chosen. He excised an oval piece of the skin of the prepuce, about 1 inch long, extending from 1/3 inch from the tip of the prepuce to 1/3 inch back of the corona. The edges of the wound were brought together by four silkworm-gut sutures. The wound healed by primary union in one week. When the patient was seen, four months later, no vestige of the lesion could be seen.

The microscopic picture of the excised tissue showed a sinus surrounded immediately beneath its epithelial layer by a mild acute exudative inflammation, extending deeply into the subepithelial tissue, where it was limited by a band of productive inflammation, as shown by the presence of young granulation tissue. Careful search for organisms (gonococci) by means of special stains was negative in result.

A Simplification of the Gram Stain. L. D. Smith[6] uses six wide-mouthed 4-ounce bottles, numbered from 1 to 6, and labeled according to the following ingredients: Bottle 1 contains alcohol-saturated gentian-violet with

(6) Jour. Amer. Med. Ass'n., April 18, 1914.

distilled water in the proportion of 1 part stain to 3 parts water. Bottle 2 contains plain distilled water. Bottle 3 contains Gram's solution. Bottle 4 contains absolute *methyl* alcohol. Bottle 5 holds plain distilled water. Bottle 6 contains dilute Ziehl-Nielsen carbolfuchsin (about 1:10), whose speedy and penetrating staining properties are well known. The elements of the stain differ from the original technique in two essential details, namely: the employment of plain water for the gentian solution in place of anilin-water (this may be used nevertheless), and, most important, the substitution of absolute *methyl* alcohol for *ethyl* alcohol as the destaining agent. The reason for this substitution is that the former acts far more quickly and efficaciously, thereby featuring a desirable time-saving phase.

In performing the Gram stain, the slide is dipped into Bottle 1 for from 5 to 10 seconds with constant stirring, is transferred to Bottle 2 for a few seconds, excess water being shaken off, then to Bottle 3 for 5 seconds with constant agitation of slide, thence to Bottle 4, where it takes but a few seconds to destain, especially if stirred, then transferred to Bottle 5 to wash (if it is not yet destained, the slide is returned to Bottle 4 again), and lastly to Bottle 6 for a few seconds. It is then washed in tap water. The time consumed is about one minute.

Treatment of Acute Gonorrhea in the Male. The irrigation treatment is not easy to learn, says Powell.[7] Faulty technique is probably at the bottom of most failures. The two-way tube or nozzle which is often used is inferior to the one-hole nozzle as recommended by Janet and Valentine. It is essential to flush out the anterior urethra with considerable force if the treatment is to be effective. A hydrostatic pressure of at least six feet is necessary. The urethra must be ballooned out and, what is also important, rapidly emptied, so that the fluid spurts out with great force. These essentials are obtained by using a nozzle with a bore equal to No. 8 or 9 of the French scale, and its partial removal from the meatus or the relaxation of the finger and thumb pres-

(7) Brit. Med. Jour., September 26, 1914.

sure blocking the meatus around the nozzle ensures a rapid emptying of the canal in the moment following its over-distention.

The process, then, consists of a quick filling and partial emptying of the urethra. This ensures a free circulation of powerful currents right up to the compressor urethrae muscle. The over-distention of the elastic urethra and its recoil facilitate the entry of the fluid into the lacunae and ducts of Littré. With the two-way nozzle the distention of the urethra is a sustained one, with probably no circulation of the fluid in the neighborhood of the bulb of the urethra. Only in hyperacute cases is it necessary to go a little more gently, and also rarely when the spongy body itself has been allowed to become infiltrated. In these cases, even with a 2 per cent. solution of cocain, the proceeding may be painful.

In the early stage, where only the first two or three inches of the urethra are involved, the whole anterior urethra should be irrigated with the usual full pressure. A splice of healthy mucous membrane treated with potassium permanganate irrigations offers an almost insuperable barrier to the inward spread of gonorrhea. This salt is almost a specific in these circumstances. Irritating solutions, such as those of silver nitrate, by lowering the vitality of the healthy membrane, favor rather than retard the spread of the disease in acute cases. The same may be said of all irritating hand injections. Permanganate may be used by means of a hand syringe, but the effect is infinitely inferior to that of irrigation.

A few of the chief points to be kept in mind may be briefly stated:

A strength of from 1 in 5,000 to 1 in 2,000, or even stronger, is used. The temperature of the solution used is from 98° F. to 100° F., and the quantity 5 or 6 pints.

For the first three or four days the irrigation is repeated morning and evening, with a solution of medium strength, say 1 in 3,000. Then once daily the irrigation is given with a solution of 1 in 2,000. A solution of 1 in 5,000 strength is to be used in very acute and painful cases; 20 drops of a 2 per cent. solution of cocain may be injected into the urethra and held in for two or three minutes just before irrigating in all sensitive cases. It is astonishing how quickly a painful condition will become painless under this treatment.

Rapid disappearance of the discharge and recovery is the rule. Should, however, a bead of yellow pus persist, endoscopy will show the lacunae of Morgagni to be greatly swollen and their outlet obstructed. This is evidence that treatment was not begun early enough, and that the fluid now can not penetrate them. In other cases which persist, but with less discharge, the superficial glands of Littré will be found more or less extensively involved. This also is found in cases which have been neglected at the beginning. When these conditions exist, in order to hasten recovery and to prevent the organization of infiltrations, the gentle use of Kollman's dilator is indicated. This instrument may be used once or twice a week and very delicately screwed up until just the faintest pressure is felt. It is a powerful machine and requires care in use. The solution mostly used is mercury oxycyanid, 1 in 4,000, or stronger. The intra-urethral treatment of these affections requires the surgeon to be an expert urethroscopist.

Treatment of Gonorrhea and Its Complications by Anti-gonococcus Serum. In this article, B. C. Corbus[8] discusses briefly the literature on this subject and tabulates the details in twenty-four cases.

In 1907 Torrey first described an anti-gonococcus serum, prepared by injecting dead and virulent gonococci into uncastrated rams. The indications for the application of the serum were the following: 1. Those infections arising by direct extension, that is, in the prostate, bladder and epididymis in the male, and in the uterus and Fallopian tube in the female. 2. Those infections arising by extension through the lymphatics or the circulatory system. These include arthritis, iritis, endocarditis, pleuritis and meningitis. The dose as recommended at that time was 2 c.c., given every three or four days, at the discretion of the physician. Later, Herbst, Belfield and Schmidt, of Chicago, and Swin-

(8) Jour. Amer. Med. Ass'n., May 9, 1914.

burne, of New York, reported their experience. All seem to have agreed in regard to the value of the treatment in rheumatism, but in regard to other complications, results were somewhat conflicting.

Previous to 1911, Corbus had given as large a dose as from 6 to 12 c.c. in two days, in cases of acute epididymitis, with surprising results. In 1911, he used this serum in a case of gonorrheal rheumatism accompanying prostatic infection. At this time, 16 c.c. were given in three days. A complete cure was obtained in two weeks. Later, Corbus decided on intravenous administration as recommended by Cole and Weaver. As the complement-fixation test for gonorrhea is a reliable guide for systemic invasion, he selected this method of diagnosis as a key to the administration of the serum.

From a study of the twenty-four cases reported, Corbus concludes that when the test is negative, the serum should not be used, and that the intensity of the positive complement-fixation test offers a reliable guide as to whether or not the serum will be efficient, as the efficiency and intensity are in direct proportion.

The amount injected should be at least from 36 to 45 c.c., administered intramuscularly, from 12 to 15 c.c. a day, for three days. Serum-sickness, if distressing, should not be alarming. A negative complement-fixation test after two or three months shows a complete cure.

SYPHILIS.

A Statistical Study of Syphilis. A careful study by C. J. White[1] of the relation of syphilitic symptoms to subsequent tabes dorsalis or general paralysis was prompted by the gradually growing conviction that the men and women who suffer most from recurrent cutaneous syphilis are not those who become tabetics and paretics, and conversely that the victims of tabes dorsalis and general paralysis are not referred to the skin clinic for the treatment of recurrent or persistent late cutaneous syphilis.

(1) Trans. Sec. on Derm., A. M. A., 1914, p. 157.

With the steady and insistent growth of this feeling, the literature has been consulted from time to time, but with disappointingly negative results as to statements based on actual figures, for the authorities on nervous disorders are, as a rule, strangely silent on this phase of the question, and the writers on skin diseases do not often concern themselves with the nervous sequelae of the disease. There are, however, a few exceptions to this rule.

Collins says: "It would be interesting and extremely useful to know what proportion of syphilitics develop nervous diseases, but so far no statistics on this subject have been at all convincing."

Jelliffe, in considering so-called parasyphilis, relies "with considerable confidence on a completely negative history of syphilis."

Dercum states: "Every physician of experience knows that in parasyphilis the history of the original infection, *i. e.*, the primary lesion, is often difficult to elicit, often denied, and often uncertain. Particularly is this true of paresis; it is almost equally true of tabes. Scars of primaries are rare, histories of secondaries commonly wanting. Does this not suggest a possible difference in character of infection? A number of men were syphilised by one woman and all developed paresis (Morel, Lavallée and Bellières); five men, all infected by the same glass-blower, became tabetic or paretic (Brosius). Nonne, Marie, Bernhard, and Erb have related similar experiences. Truly gummatous lesions in paresis are excessively rare."

Nonne believes that the question as to "who will become paralytic or tabetic has not been settled," and that "there is a special genus of spirochete which has especial affinity for the nervous system."

Ravaut remarks that "even in very extensive malignant precocious syphilis the spinal fluid is most often negative."

Jeanselme notes that "in the natives of southeastern Asia, where malignant cutaneous syphilis is so prevalent, one seldom sees tabes or general paralysis."

Pollitzer's observations, extending over many years,