

tabo-paresis, feeble-mindedness, epilepsy, or some other condition, presumably due to a syphilitic infection,—conditions that almost-always need institutional care.

In other words, of the 3000 cases admitted to the House and the Out-patient Department, 500, or 16%, showed positive, or doubtful reactions for syphilis, and of these 500 cases, 200 were suffering from conditions due to a syphilitic infection and needing institutional care. That is, 200 out of 3000, or 6% of the total admissions were candidates for institutional care because of the results of syphilitic infection.

In the state institutions of Massachusetts, there were over 15,000 patients in 1913; 8.32% or over 1100 of these cases, were diagnosed as general paresis. Thus, this estimate of 6% for the Psychopathic Hospital is probably below, rather than the true status of affairs. But assuming that 6% is a fair figure, this means that in the state of Massachusetts, some 900 individuals are in state institutions, and in part or wholly, state charges, as a result of syphilitic infection.

It costs some \$223.60 per annum to support an inmate of a state institution. At this rate, over \$20,000 is spent in one year to care for individuals who are suffering mentally as the result of syphilitic infection.

A dose of salvarsan now costs \$5.00. It is estimated that ten doses might have some beneficial results in treatment of cases of this sort. This means \$45,000 for salvarsan alone if treatment is undertaken for these cases.

If one automobile kills, or totally incapacitates a man, a lawyer tells me that \$5000 is an average amount paid for damages. At that rate, \$4,500,000 is the damage that the spirocheta has done to the 900 patients in the state institutions of Massachusetts.

As you know, syphilis is not a disease that affects an individual alone. It is visited upon his children. Complete records of the family histories of these cases were not to be had. Among 70 cases, however, 133 deaths in the families were recorded, 52 miscarriages and 8 still-births—a total of 193. If these children's deaths were due to syphilis, and if this ratio holds throughout all the cases, 2490 children born and unborn, related to the patients in state institutions in 1914, have died from syphilis. And yet it is known that women having syphilis of the nervous system, do not miscarry nearly as frequently as do other syphilitics. Consequently, no one has any knowledge of how many infants and children die each year in Massachusetts as a result of syphilis.

Lest it be thought that syphilis is a disease of the poor and socially inefficient, the following list of occupations is given which were noted among the occupations of these patients:—

1 Architect
1 Accountant
1 Store-keeper

1 Banker
1 Insurance Agent
1 Stenographer

2 Jewellers	1 Solicitor
1 Journalist	1 Policeman
1 Ship Chandler	1 Wool Broker
1 Photographer	1 Clergyman
1 Blue Printer	1 School Manager
1 Farmer	1 Bank Clerk
1 School Teacher	1 Superintendent of Electrical Co.
1 Milliner	1 Physician
5 Traveling Salesmen	
1 Actor	

Lest it be forgotten that the community may be endangered by the inefficiency of these individuals—inefficiency that may develop without warning—the following list is given of some of the potentially dangerous occupations of these patients:—

3 Engineers	1 Boat Captain
2 Druggists	1 Railroad Signal Man
3 Electricians	1 Car Inspector
2 Conductors	1 Motorman
1 Janitor	1 Lighthouse Man

And lest we forget how close home this disease may be brought to all of us, this list of occupations of these patients is given, although it is to be remembered that only under certain conditions and in certain stages of the disease, is it strongly contagious:—

7 Waiters	1 Nurse Maid
1 Trained Nurse	1 Fruit Peddler
5 Barbers	1 Milkman
3 Caterers	1 Grocer
2 Cooks	

These are some of the economic facts regarding this disease as seen at a hospital for mental diseases.

In New York City last year, during a period of 14 weeks, syphilis stood first in the list of infectious and contagious diseases, with 28% of the total number reported; tuberculosis was next, with 21%, and afterward, diphtheria, measles and scarlet fever, in the order named.

We all know what is being done to eradicate tuberculosis, which maims the body of the individual; but syphilis, which maims both body and mind, and is visited upon the generation yet unborn, is scarcely mentioned in the public press because many of the cases are venereal in origin.

(To be continued.)

Clinical Department.

FRACTURE OF THE TRANSVERSE PROCESSES OF THE FIFTH LUMBAR VERTEBRA.

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AND
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A GREAT deal of attention lately has been given to the lumbar and lumbo-sacral spine as a cause of backache. In any large series of x-rays, such as one sees at the Massachusetts General Hospi-

tal, one occasionally finds some x-rays that show breaks in the continuity of the transverse processes of the lumbar vertebrae. Six cases of this kind were reported by Rhuys, under the title of "Pseudo Fractures of the Transverse Processes." He believes that they are due to a non union of the epiphysis in this region and are not true fractures, and bases his opinion largely on the fact that in his cases there were no histories of any injury severe enough to cause a fracture. The following case is reported with x-rays to show that this condition may occur without violent trauma and may be a true fracture.

On August 30, 1913, the patient, age 42, a medical man, gave the following history: When in college he had to stop playing football because of backaches coming on after getting tired. If he did not get overtired he had no trouble. For the past twelve years he had been treated for tabes, the diagnosis being made by some of the best medical men and neurologists. The chief symptoms were backache and leg pains associated with absent knee jerks, Argyll Robertson pupils and an increasing ataxic gait. This condition and the distress with it gradually increased until the attempts to control the pain with morphia caused the still more distressing troubles of a morphia habit. The patient, seven months ago, went through a course of treatment to stop the morphia. This was successful but left him in a very much relaxed and weakened condition. He then went to an out-of-door physical culture establishment, where in about three weeks he was brought to a condition of being able to walk six to eight miles or more a day. Part of the training was riding horseback. One day, being extremely tired and relaxed, he received, while riding, a sudden jolt which caused a moderate amount of pain in his back. A few days after this ride the masseur told him that the lower back was black and blue. It was also somewhat sensitive to pressure. For ten days following the ride, the pain in his back and legs, first one and then the other, depending on certain motions being made, increased so that he had to stop the training. When the examination was made two weeks after the injury, it showed a large tall man, of the broad heavy type, of muscular but somewhat flabby build. He had a distinctly ataxic gait. He had had a great many Wassermann reactions done, none of which had ever been positive, not even from a lumbar puncture. The standing attitude was one in which there was a very marked increase of the normal lumbar curve, associated with rounded shoulders and a forward position of the head. There was considerable limitation of the lateral spinal motions—especially in the low lumbar region. Flexion of the spine showed that the lumbar curve could be made flat but not rounded. There were two definite points of tenderness just inside the posterior superior spines, at the place where the transverse processes of the fifth lumbar vertebra should be. An x-ray, taken by Dr. Walter Dodd, two days after the above physical examination (see Fig. 1) showed large, broad transverse processes of the fifth lumbar vertebra; a sacrum which was placed low between the crests of the ilia. This meant, of course, that, if there should be much hyperextension of the spine on the sacrum, these transverse processes would be more liable to impinge either on the ilia or on the wings of the



FIG. 1.—Note the fracture of the transverse processes of the fifth lumbar vertebra: That the lumbar vertebrae are large and are broad compared to their height. That the transverse processes are also of the large broad type. That the sacrum is placed low between the ilia.

sacrum. These transverse processes, in the x-ray, showed a definite break of their continuity. The edges of the break were serrated and closely resembled a fracture. A diagnosis was made and confirmed by Dr. Dodd of probable fracture of the transverse processes of the fifth lumbar vertebra. The treatment was planned to support the lower lumbar region and to correct the markedly increased lumbar curve with the hope that by so doing, the strain on the fifth lumbar transverse processes would be relieved. A belt with a pad to bridge the lumbar curve behind and a pad to hold up the abdomen in front was applied. In three days there was a marked lessening of the pain down the legs and the patient also thought the ataxia was less marked. Fig. 2 shows a second x-ray taken three and one-half



FIG. 2.—Taken three and one-half months later, shows a callus formation at the sites of fracture.

months later. This shows a thickening of the edges of the bone around the break in continuity, which

closely resembled callous formation. With this change in the x-ray picture has come a relief of the symptoms of which the man complained, namely relief from the pain in the back and legs and what is still more interesting, a marked decrease of the ataxic gait.

Whether there is any connection between the ataxia and the possible pressure which may have been produced by the anatomy of the spine in the lumbo-sacral region, combined with the faulty posture, is a matter of conjecture. We report this case, as it may interest others as it has interested us.

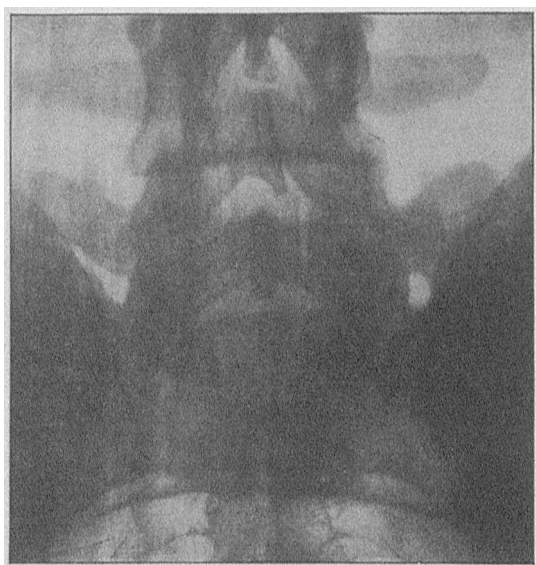


FIG. 3.—Taken sixteen months after Fig. 1; shows the callus somewhat smaller than in Fig. 2.

We wish to thank Dr. Goldthwait for permission to report this case.

A CASE OF DERMATITIS MEDICAMENTOSA.

BY WILLIAM S. WALSH, M.D., PROVIDENCE, R. I.

THERE is scarcely a drug in the pharmacopeia that may not produce a skin eruption when such a drug is administered to a susceptible person. Moreover the eruption produced may be macular, papular, vesicular, pustular, bullous, ulcerative, gangrenous, diffusely erythematous, or urticarial, and may simulate certain definite diseases of the skin, or conform to no well recognized type. The same drug may produce a variety of skin disorders, so that, with the possible exceptions of silver, arsenic and the bromides, they present, clinically, nothing specific in their various manifestations.

Generally, drug eruptions occur most commonly in persons whose vitality is low, or who are nervous subjects. Constitutional or organic disease, as well as idiosyncrasy, are predisposing factors. The eruptions are usually bilateral, appear mostly on the exposed surface of the

body, are not accompanied by fever as a rule, generally do not itch, are not painful, save in severe inflammatory types, appear suddenly, disappear rapidly on cessation of the drug, are very red in color, and have atypical courses.

It should be the practice of every physician to inquire of his dermatological patients whether or not they have been taking medicine. In this way many an embarrassing situation will be escaped. Only lately I saw a young child, who, on cursory examination, seemed to be undoubtedly suffering from scarlet fever. He was profusely covered by a scarlatiniform rash, had a temperature of 102, a rapid pulse, enlarged cervical glands, etc. When the facts were considered, namely, that generalized, scarlatiniform drug eruptions are often accompanied by systemic disturbances and a rise in temperature, that the child was tubercular and had been receiving atropine for a corneal ulcer, the original diagnosis of scarlet fever was changed to one of belladonna eruption.

In this connection I wish to describe briefly a case of mercury eruption following a short course of vaginal douches.

The patient was a strong robust girl, aged 21, single, white, who presented herself for treatment on April 8, 1915, being over eight months pregnant and having a very profuse vaginal discharge due to the gonococcus. She had a large condylomatous mass on the left vaginal wall which refused to respond to therapeutic measures until after delivery. She was placed under treatment with daily douches of bi-chloride of mercury, two quarts of a 1 in 5000 solution being employed. This treatment was kept up until May 25th, on which day she was delivered of a normal male child. The douches were discontinued until July 19th at which date they were again instituted. On July 24th the patient developed redness on the sides of the nose, her temperature rising to 103.8°. On the following day a diagnosis of erysipelas was made. On July 27th she complained of a bad taste in the mouth, of salivation, and sore teeth, small pieces of which were chipped off. The douches were discontinued. On July 28th her temperature was 99, on which day she developed a generalized eruption. The eruption was papular, slightly scaly, intensely inflammatory, did not itch, and was not accompanied by any marked subjective sensations. A few tiny vesicles surmounted some of the papules. The lesions varied in size from a small pea to a dime. A Wassermann reaction taken sometime previously was negative, so there was no doubt but that the eruption was due to mercurial poisoning. A few days after the cessation of the douches it disappeared. Unfortunately the patient soon after left for other parts, so her reaction to mercurial preparation by mouth could not be tested.

We know that mercury may cause erythematous, furuncular, herpetic, papular, purpuric, pustular, scarlatiniform, ulcerative and urticarial lesions, but the rarity of eruptions from the absorption of mercury, and especially the production of an eruption by way of the vagina, prompt me to offer this case as a contribution to the meagre literature on the subject.