

peated thorough examinations revealed no constitutional disturbance, blood and urine being negative.

Treatment.—Treatment in my case proved even less successful than in those previously reported. She was given innumerable antipruritics, with only temporary relief. Resorcin, pyrogallie acid, chrysarobin, and various tars, in increasing strength, were used, with no better results. The x-ray was very positively refused, but high-frequency currents were applied for over four weeks. Saline cathartics were administered for more than a month, as were salicin and phenyl salicylate, in increasing doses. In October, 1908, after she had been under my care for five months, the patient's condition became so deplorable that it was thought best to place her under the constant observation of nurses. For this purpose, she was sent to the Presbyterian Hospital, with a nurse in constant attendance. She was allowed from two to five hours outdoor exercise, all medication, both external and internal, having been stopped, except hot salt solutions applied to the diseased areas. Under this treatment she rested better, her mental condition improved and she gained some weight. When last seen, less than a month ago, the condition in the axilla and over the pubes showed little or no change. The papules were still present, the hair had not returned and the itching though less frequent was at times very annoying. The patient's mental condition had continued to improve, and she was devoting all her time to music and outdoor life. She still continued the use of the hot salt water packs.

Biopsy.—Sections made from a biopsy taken from the axillæ showed an extensive acanthosis, most marked about the sweat-duct, a dense hyperkeratosis at the mouth of the duct, in some instances extending deep into the duct proper. There was an extracellular and intracellular edema, with a shrinkage of the nuclei seen throughout the prickly cells, and in places small vesicles had formed. In the papillary and subpapillary layers of the corium, a marked degeneration and edema were found, and the elastic tissue in this region was so changed that it did not take the usual stains. An infiltration of lymphocytes and plasma cells was present in foci and about the vessels and sweat glands. A hyaline degeneration was seen in some of the arteries of the corium, with an atrophy of the nuclei of the wall, but by far the most marked change was the dilatation of the sweat-gland accompanied with a degeneration of the lining cells. In some of the tubules, there were partial casts, and in two there were found round concretions or bodies the nature of which is to me obscure.

The histologic picture in my case differed only in minor details from that reported by Dr. Fordyce; namely, the hyaline degeneration of the arteries and the changes in the staining quality of the elastic fibers.

In conclusion, it is apparent that Dr. Fordyce's contention is well grounded, and that as his conclusions are approved by Brocq, we may accept this peculiarly localized dermatosis as a lichenification, the etiology of which is still in doubt.

If one might hazard a guess at the cycle of histologic changes occurring in the development of the disease, I would suggest that the pathologic condition began in the sweat-glands, with a morbid change in the lining cells, followed by a destruction of the cells and a dilatation of the gland proper, and that all other changes demonstrated were secondary to this process, and due to the elimination of a toxin yet unknown.

Memphis Trust Building.

ABSTRACT OF DISCUSSION

DR. J. A. FORDYCE, New York: Through the kindness of Dr. George H. Fox of New York I saw a third case of this affection in which the eruption occurred in the identical localities, and I have had personal communications with other physicians who have described similar cases. These observations might lead one to think that we have at least a distinct clinical picture if not a definite entity. As supporting the toxic origin of such a condition, we see on other parts of the

skin purplish thickened patches made up of papules which have run together and which occur in individuals who are suffering from some toxemia. This toxemia may result from the excessive use of tea, coffee, or alcohol, or possibly a combination of these agents, with intestinal fermentation. In the cases which occur on other parts of the body than the axillary or pubic region I have been unable to demonstrate changes in the sweat glands, but subsequent investigation may show them.

A REPORT OF SIX CASES OF SYPHILIS TREATED WITH SALVARSAN

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In selecting cases for experimentation with "606" an attempt was made to choose those with demonstrable lesions and those which would best represent the various stages of the disease, excepting the meta- and parasymphilitic conditions.

The list of cases includes one with primary lesion of tonsil, one with primary lesion of penis with secondary eruption, two with maculopapular secondaries, one with ulcerating secondaries of the tonsils and vocal cords, and one with gummatous lesion of forehead. Except in one instance, an alkaline solution of the drug was injected into the buttocks according to the technic developed by Lesser.¹ In this exception the same solution was injected intravenously, after being first diluted with distilled water to 200 c.c., according to Schreiber's method.²



Fig. 1.—Lesion in Case 6 before injection with salvarsan ("606").

The intragluteal injections gave very little pain at the time of administration except in one nervous individual. In every case the pain became quite severe within an hour after injection and in all but one case morphin was required to give relief. The pain was somewhat less the day following and the patients were able to leave their beds and to walk about, though with more or less difficulty on account of the soreness in the buttocks and pains radiating along the course of the great sciatic nerve. Local tenderness and induration developed and increased until about the fifth day, after

1. Described by Corbus, B. C.: The Value of Ehrlich's New Discovery, "606" (Dioxydiamidoarsenobenzol), THE JOURNAL A. M. A., Oct. 22, 1910, p. 1471.

2. Schreiber: Verhandl. a. d. 82 Versamml. Deutsch. Naturforscher u. Aerzte in Königsberg, Sept. 20, 1910; Deutsch. med. Wchnschr., 1910, No. 41, p. 1899.

which it gradually subsided, though the latter was still noticeable in some cases twenty days after treatment. No reddening of the skin or fluctuation at the site of injection was observed.

Following each intragluteal injection there was a gradual rise in temperature to about 101° F. reaching the maximum on the third or fourth day with the general symptoms of fever, such as headache, loss of appe-

TABULATED RESULTS OF SALVARSAN ("606") MEDICATION IN SIX CASES

Age	Infection	Previous Treatment	Condition Before Injection	Injection	Local Effects	Condition After Injection	Remarks
42	Chancre of penis 1889. Treated locally. No secondaries were noticed. Developed tertiary lesion 7/1/10.	Gumma incised and treated with antiseptic dressings. No mercury or iodids taken.	Gummatous lesion of frontal bone began about July 1, 1910. Was incised about September 1. On admission to hospital this was about 2½ by 2 in. in diameter and projected from forehead as a hard mass. There was a small incision in one portion of mass discharging pus. Loss of appetite and general feeling of ill health. Wassermann positive.	11/1/10—6 gram "606," dissolved according to Lesser's method in a 20-c.c. alkaline solution and 16 c.c. injected into each buttock.	Patient cries with pain at the time of injection and complains of pain extending down legs. Painful indurated mass in each buttock with maximum tenderness on the third day. Tender to pressure twelve days after injection. No redness of skin or softening at any time.	11/3/10—Two days later gumma softer and slightly smaller. Improvement steady. 11/19/10—No discharge from incision and mass less than half the original size and very soft and flat. Gain of three pounds in weight; feels well; appetite good. Wassermann positive.	11/2/10—Erythematous eruption involving flexor surfaces of arms and upper part of chest. 11/3/10—Eruption fading rapidly.
21	8/15/10—Chancre of penis. Spirochetes found. 11/15/10—Maculopapular eruption appeared.	Local for chancre only. Primary sore lasted seven weeks.	Maculopapular eruption scattered over body, more numerous in palms; mucous patches in mouth. General glandular enlargement; malaise, loss of appetite. Wassermann positive.	11/4/10—0.4 gm. by Lesser's method.	Painful induration. Left hospital ninth day, having but little local disturbance.	Mucous patches lost their irritability after fifteen hours. 11/7/10—Three days after injection mucous patches indistinctly seen. 11/8/10—Two days after injection secondaries fading. 11/9/10—Glands becoming smaller. After eight days secondaries all gone from body. Remains of same in palms. 11/15/10—Patient looks fine and feels well.	
21	7/10/10—Chancre of penis lasting two weeks. 8/15/10—Ulcerating secondaries in throat.	Took mercury for six weeks in pill form until teeth became sore. Took liquid medicine two to four weeks. No improvement at any time. All medicine stopped two or three weeks before admission to hospital.	Excavating ulcer of each tonsil size of a dime. Enlargement and induration of glands of neck. General glandular enlargement. Mucous patches in mouth. Erosion of vocal cord with edema and injection. Gonorrheal urethritis. Gonorrheal arthritis involving both knees. Wassermann positive.	11/4/10—0.6 gm. by Lesser's method.	Painful induration. Fairly comfortable in five days.	Infiltration of tonsils less marked after fifteen hours. Mucous patches not tender. Tonsillar and laryngeal lesions healed in six days. Glands slightly smaller after three days. 11/22/10—Wassermann positive.	
34	Extragenital infection Aug. 5, 1910. Excision of primary lesion. 10/8/10—Maculopapular eruption. Mucous patches in mouth and about anus.	Gray powder, gr. 2 t. i. d., for two weeks. Blue mass, gr. 2, every four hours for two weeks. Discontinued on account of intestinal disturbances. Nine doses of mercury given intragluteally. Slight improvement in secondaries with latter. Last dose given 11/6/10.	Maculopapular eruption scattered over body and palms; more numerous over forehead. Mucous patches about anus. Moderate injection of conjunctivae, especially of right eye. General malaise with loss of appetite. Wassermann positive.	11/9/10—0.65 gm. by Lesser's method.	Local effect in this case more marked than in others. Swelling more extensive from beginning and more painful. Cramps in calves of legs, especially at night. These still occurred eight days after injection. Sleeplessness requiring morphin and later chloral and trional.	11/10/10—Mucous patches not sensitive. 11/11/10—Secondaries fading. 11/16/10—Seven days after injection eruption almost gone; few lesions on back and forehead. 11/18/10—Secondaries practically disappeared.	Herpes labialis on fourth day.
19	Exposed 8/20/10—Sore throat developed about one month later.	None.	11/5/10—Deep excavating ulcer of left tonsil with overhanging edges and infected base. Tonsil enlarged and indurated. Regarded as primary lesion. Submaxillary and surrounding glands enlarged. Axillaries and epitrochlears enlarged. Wassermann positive.	11/9/10—0.65 gm. by Lesser's method.	Painful induration. Discharged on seventh day, and walked with but slight limp at that time.	11/10/10—Fifteen hours after injection ulcer was not so deep or crater-like in appearance and was not painful on swallowing. Tonsil smaller. 11/21/10—Lesion entirely healed.	
24	10/3/10—Chancre, which was treated locally. Macular rash appeared 11/10/10.	Two doses sodium cacodylate, hypodermatically. Oct. 22, 10.1 gr.; Oct. 22, 1910, 1 gr.; Oct. 25, 1910, 2 gr.; Oct. 25, 1910, 10.2 gr.	Two large indurated sores on penis (see photo). 11/10, macular rash over body. Wassermann positive.	11/12—0.4 gm. "606" given intravenously, according to Schreiber's method. After a portion of the fluid was injected a small amount ran beneath the skin, so a new site was chosen, with perfect result.	Very slight irritation where small amount of fluid ran under skin. This disappeared the following day. No soreness where technic was good.	Chill, nausea and vomiting two hours later. Temperature rose to 101.5° F. in six hours and had one diarrhoeic stool. Primary lesion markedly improved on second day. Healed in thirteen days. (Figs. 1 and 2.)	Six hours after injection rash much brighter and more extensive. (Herxheimer reaction?) Herpes labialis on third day.

tite, general malaise, and leukocytosis. In the case in which the drug was given intravenously there was a rather marked but very transient general reaction. There was a marked chill two hours after the injection and the temperature arose in six hours to 101.2° F. Associated with the increase in temperature there was headache, vomiting and one diarrhetic stool. When the temperature was highest this patient showed a distinct increase in the already existing rash which became more intense and more extensive, covering the whole of the trunk and the extremities (the so-called Herxheimer reaction).

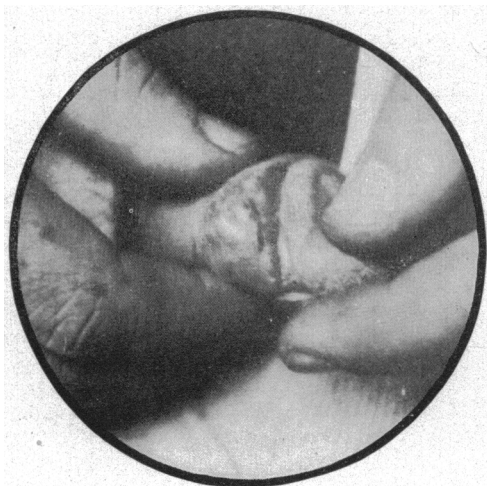


Fig. 2.—Lesion in Case 6 thirteen days after injection with salvarsan ("606"). The induration is much less marked and the ulcer has entirely healed.

The most interesting result of the use of the remedy was the rapid onset of the improvement after the administration. The primary lesions began to heal within two days. The mucous patches lost their irritability in fifteen hours. The ulcerating secondaries of the tonsils manifested an improvement in the same length of time, the first changes being a decrease in the infiltration of the surrounding tissues and a subjective lessening of the stiffness which caused difficulty in swallowing.

All of the patients are still under observation and subsequent serum examinations will be made to determine the ultimate results of the treatment.

AN INTERESTING CASE OF CONFUSIONAL INSANITY

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The following case presents several features of unusual interest to the student of mental diseases. In the first place, it is a rather rare type of mental derangement, as I have found in reading the meager descriptions given in available texts; secondly, the etiologic factor is interesting as well as unusual; third, the duration of the attack, and last, the peculiar disappearance and abrupt recovery.

The patient in question, a German-American, was admitted Nov. 17, 1910. Examination showed a man of healthy appearance, though rather thin; age 38, height 5 feet, 11¾ inches, weight 160; pulse 68, regular and full; temperature 98.2; respirations 17; motor symptoms none; all functions fair. His

hereditary history was negative—father and mother living and in good health; no history of mental trouble in collaterals.

The patient was quiet and unobtrusive; talked freely when addressed, and frequently mentioned soldiers, woodmen and doctors; would give his correct name when asked but could not spell it. Given pencil and paper, he attempted to write, but gave up, laughing, and remarked that he could neither read nor write. He was cleanly in his habits, not violent in any way and obeyed when told to do anything. He complained of no symptoms, ate heartily and slept well. The commitment papers described him as a well-to-do business man, of fair education, married and the father of four children. He had never suffered from mental trouble, serious injury or disease, was temperate in his habits, and of mild disposition.

In October, 1909, he went with a brother to Omaha to be operated on for appendicitis, ether being the anesthetic used. The operation was successful and after a three weeks' stay in the hospital he returned to his home. From then on he showed a marked change of disposition; refused to recognize his wife and disowned their children. His mind dwelt incessantly on physicians and operations, and he talked continually about taking good care that no medical man would ever come near him. March 28 he disappeared, leaving some blood-stained clothes on a lake shore near the town. All search for him proved futile, and no trace of his whereabouts was found until Nov. 7, 1910. On that date he was picked up by the police of a distant city, identified and returned to his people. His peculiar actions caused him to be brought before the insanity board, which resulted in his being committed to the Nebraska State Hospital. On entering the hospital he was given an active purge and placed under surveillance, no special treatment being instituted.

On the fifth day he asked to see me privately and was brought to my office. A marked change was noticeable in his demeanor, and his face bore a look of interest and intelligence. His first remark was, "Doctor, I'm all right again." Explaining further, he stated that sometime after midnight he awoke and felt a queer pain in his head. Sitting up in bed he noticed that he was in some sort of a ward, and recalling the operation decided that he was still in the Omaha Hospital. When morning came he learned his mistake and immediately questioned an attendant as to his whereabouts and how he had reached such a place.

The last act he could recall was taking ether, previous to the operation thirteen months ago. He could describe the room, and repeat all conversation heard before succumbing to the anesthetic. As to going home after the operation, remaining there until March, and disappearing, he knew nothing. Apparently, no thought or act, during the entire year had left an impression on his mind, and he had lost completely thirteen months of his life. Strangely enough, there seems to be no trace whatever of how or where he passed the interval between March and November. Neither hands nor clothes showed signs of manual labor, and his inability to read or write, while mentally deranged, as demonstrated on entering, showed him incapable of intellectual employment. His means of support and actions during this period would certainly prove of unusual interest, but seem destined to remain a mystery.

The patient's wife was notified at once of his mental change and took him home on parole. A recent report from her states that he has been normal since his return, has taken up work where it was dropped in October, 1909, and is none the worse for his mental vacation.

I have been unable to find, in available literature, a description of any case closely related to the above, but presume that they occasionally come under the care of mental specialists. An interesting case was reported from Toronto, Canada, several years ago, and also one in the London *Lancet* a decade ago. These cases, I believe, were diagnosed as perverted personality, and though resembling our case in some particulars, were unlike in essentials. For want of a more specific diagnosis we have classified our case as post-operative confusional insanity.