

**Results of salvarsan therapy in malignant syphilis praecox, syphilide of the palms and gumma of the tongue / by Herman F.L. Ziegel.**

**Contributors**

Ziegel, Hermann Fred Lange, 1876-  
Royal College of Surgeons of England

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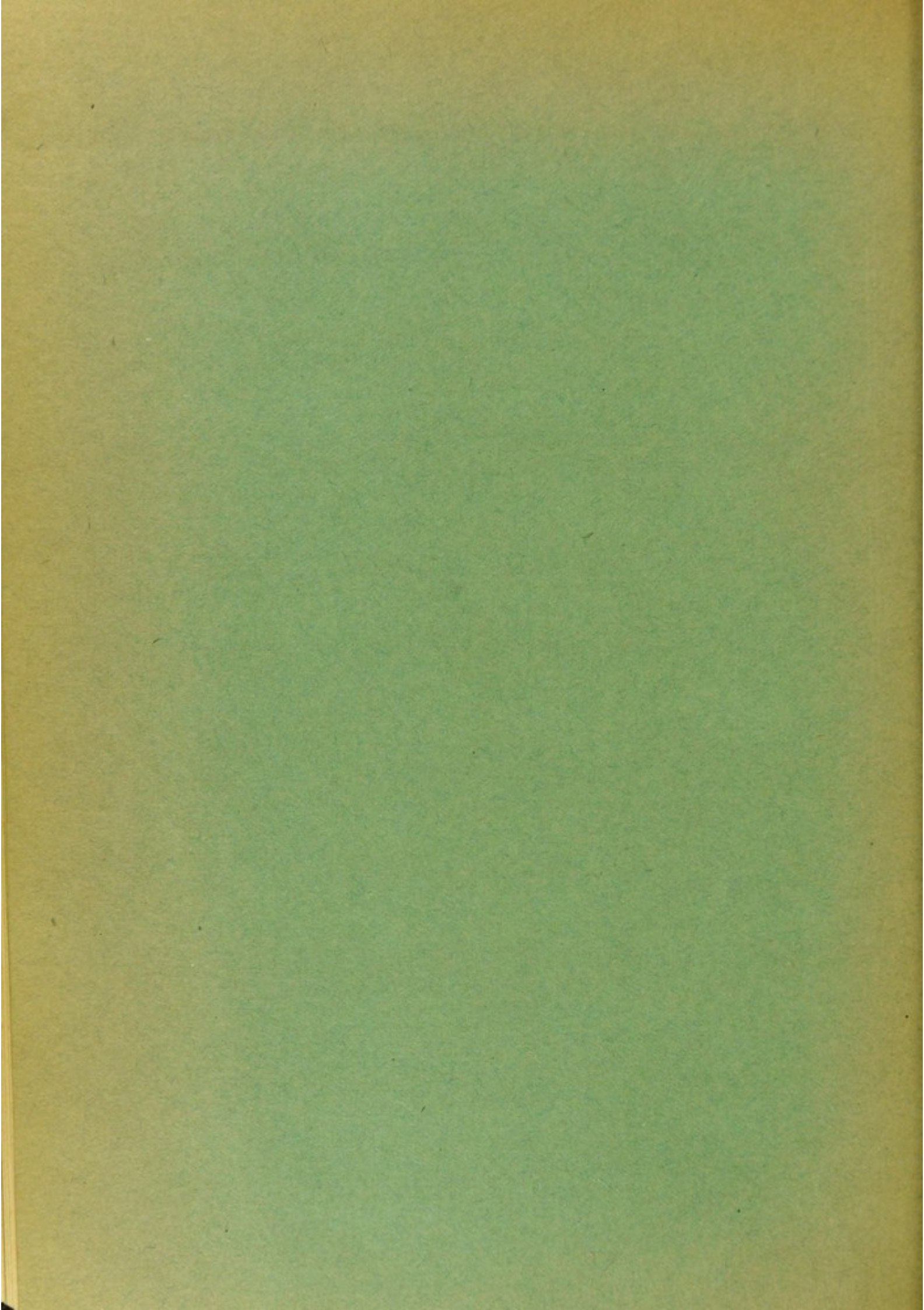
BY HERMAN F. L. ZIEGEL, M.D., NEW YORK

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## RESULTS OF SALVARSAN THERAPY IN MALIGNANT SYPHILIS PRÆCOX, SYPHILIDE OF THE PALMS AND GUMMA OF THE TONGUE.

By HERMAN F. L. ZIEGEL, M.D., New York.

### MALIGNANT SYPHILIS PRÆCOX.

IT is now well known that in malignant syphilis with mucous membrane lesions which have been resistant to mercurial treatment, striking symptomatic results can be obtained with salvarsan. Additional proof of this fact is the subsequent history of a case which has been previously published under the title: "Precocious Tertiary Syphilis: Report of a Case with Manifold Manifestations."<sup>1</sup>

Fifteen months after post-nuptial infection by his wife, a man, 37 years of age, who had been treated neither thoroughly nor methodically, began to exhibit tertiary manifestations which appeared in the following order:

- (1) Ulcer of the right leg;
- (2) papular syphilide of the scalp;
- (3) deep ulcerations of tonsils and posterior pharyngeal wall;
- (4) stricture of the left nasal duct;
- (5) ulcers on the forehead;
- (6) periostitis of nasal bones;
- (7) gumma, suppuration and perforation of nasal septum;
- (8) bursitis and synovitis;
- (9) periostitis of heads of tibiæ;
- (10) gummata of right testicle;
- (11) synarthrositis.

From the above, it will be seen that the lesions had been superficial, involving chiefly the skin, mucous membranes, ocular appendages, cartilages, bursæ, periosteum, the testicle and costo-chondral articulations. When this case was previously reported, the patient was free from syphilitic manifestations, all of which had responded to mercurial treatment given in the form of inunctions and injections of the salicylate. At this time (October, 1909), however, the Wassermann reaction was strongly positive. Mercurial treatment was therefore continued up to the time the patient passed temporarily out of observation in July, 1910, when, despite this additional treatment for nine months, the Wassermann reaction was still strongly positive. Contrary to advice, the patient discontinued treatment because he felt well and was free from symptoms and lesions.

In October, 1911, the patient returned with ulcerations over both tonsils. The administration of salvarsan was advised and strongly urged, but the patient would not submit to it until July, 1912, when he again returned, this time in a pitiable condition. He had lost considerable flesh and strength, and was cachectic; there were profuse foul discharges from extensive deep ulcerations and broken-down gummata in the nares and pharynx. His weight was 112 pounds. The Wassermann reaction was strongly positive. Noguchi's luetin test was positive—of a pustular type.

<sup>1</sup> *Med. Rec.*, 1909, lxxvi, p. 645.



On August 1, 1912, 0.6 gm. of salvarsan were given intravenously with the Fox-Trimble apparatus and technique. Starting five hours after the injection and lasting 24 hours, there was a slight reaction with nausea, diarrhoea and a rectal temperature of 100° F.

Two days after the injection the ulcerations on the tonsils, uvula, palate and posterior pharyngeal wall appeared healthier, and there was less discharge. By August 10 the ulcerations had healed entirely, and the discharge ceased. Almost miraculous was the transformation. There was a gain in weight of one pound, and the general condition was greatly improved. On August 15 another pound had been gained, and the general condition had improved still further.

On August 16 another intravenous injection of 0.6 gm. of salvarsan was given. There was practically no constitutional reaction. On August 29 the weight had increased to 116 pounds; the patient said he felt like a new man, and possibly was not in error in declaring that his life had been saved by salvarsan.

On September 1 was started a series of twelve injections of gray oil. In December, 1912, the weight had increased to 130 pounds, and the general condition had improved greatly; during the six years of observation previous to the treatment with salvarsan, the highest weight was 124½ pounds.

This patient is far from being regarded as cured of syphilis. In December, 1912, the Wassermann reaction was still strongly positive. Intradermal injection of 0.07 cc. of luetin was followed in five days by the appearance of a pustule, from which, six days later, seropurulent fluid was extruded. Three months ago the patient would not submit to further mercurial treatment, though urged to do so. Who knows when he will return with new manifestations?

**CONCLUSION.** Despite the rapid involution of severe syphilitic lesions and the prompt disappearance of cachexia after salvarsan therapy in a case of malignant syphilis, the persistence of a positive Wassermann reaction and of a positive luetin test after two administrations of the drug would seem to indicate that the disease is not permanently suppressed, though at the time of writing the patient has been free from symptoms and lesions for eight months.

#### SYPHILIDE OF THE PALMS.

From the standpoint of therapeutic efficiency as indicated by the permanence of the symptomatic results and the effect on the Wassermann reaction, only in selected cases does salvarsan appear to have advantages over mercury. Such an exceptional case is one of squamous syphilide of the palms, in which apparent cure after prolonged mercurial treatment was always followed by a recurrence of the eruption and by a positive serum test; but since salvarsan therapy was employed over two years ago, there has not thus far been any reappearance of the skin lesion or return of a positive Wassermann reaction.

A male patient, 40 years of age, had a genital chancre, followed by secondary symptoms twelve years ago. He was systematically treated by mouth for two years, when he married and the treatment was continued for another year. His wife gave birth to a dead child seven months after marriage; she remained well, but never became pregnant again till eight months ago. Two years ago her Wassermann reaction was negative. According to information kindly fur-



nished by her obstetrician, Dr. Thomas H. Cherry, at the time of writing there is a living foetus.<sup>1</sup>

Three years after Mr. B.'s primary infection, a scaly eruption appeared on the palms which, when the patient first came under observation three years ago, had been unsuccessfully treated with ointments. The Wassermann reaction was positive. One month after a series of twelve intramuscular injections of the salicylate of mercury, the eruption disappeared, but the Wassermann reaction was still positive. One month later the eruption reappeared. A new series of twelve intramuscular injections of the salicylate resulted in temporary local improvement. But two months after the last injection of the second series the eruption was returning, and the Wassermann reaction was positive. It is to be noted, then, that after mercurial treatment there was a temporary favorable effect on the syphilide, but persistence of a positive Wassermann reaction. Some months previously, Fordyce<sup>2</sup> had reported a similar case successfully treated with salvarsan.

Accordingly, an intramuscular injection of 0.5 gm. of salvarsan in iodipin suspension was given and repeated in two weeks. Even before the second injection the palms had become soft and free from scales, and up to date, during a period of over two years, there has been no recurrence. Though at the time of writing the skin over the palms appears to be normal, because of a recent doubtful Wassermann report, and as a precautionary measure the patient is now being given a series of salicylate of mercury injections.

As to the serum tests, nine days after the second salvarsan treatment the Wassermann reaction was for the first time reported negative; twice subsequently it was negative. These serum tests were performed simultaneously and independently at the Rockefeller Institute and by Dr. J. J. Hertz; there were no discrepancies. In July, 1912, Dr. W. J. Heimann also found the Wassermann reaction negative. The last serum tests, performed March 25, 1913, by the New York Board of Health and by Dr. J. J. Hertz, were reported  $\pm$  by the former and negative by the latter.

Whenever it was practicable during the past year, the writer has asked two serologists to perform the serum test independently. In fourteen examinations which were thus checked up, there was absolute correspondence in all but two instances, and in the latter there were but slight discrepancies.

**CONCLUSION.** This case corresponds closely with the one reported by Fordyce, and serves to confirm his experience that in a scaling syphilide of the palms, salvarsan is the specific of choice because of the greater rapidity and permanence of the therapeutic effect in this condition.

#### GUMMA OF THE TONGUE.

During the summer of 1905, a physician engaged in general practice in New York City failed to make it a rule to wear rubber gloves in his obstetric work. On the skin over the middle phalanx of the right index finger appeared a small papule, which subsequently increased in size, suppurated and was excised by Dr. Charles A. Elsberg. There remained an indolent ulcer which, when it matured, from time to time was incised and curetted. In the meantime there had developed chilliness, intermittent fever, a lymphangitis extending up the dorsum of the hand to the forearm, and enlargement of the right epitrochlear and axillary nodes, those in the armpit being about as large as hazelnuts and very

<sup>1</sup> Since this report was submitted for publication an apparently perfectly healthy baby was born.

<sup>2</sup> *Jour. Am. Med. Assn.*, 1910, lv, p. 1174.



painful. About seven weeks after the finger infection was first noticed and three days after thorough curetting under general anæsthesia, there developed: increased fever and chilliness, gastro-intestinal disturbance, nocturnal pains, insomnia, slight loss of hair, general adenopathy, pharyngeal hyperæmia and an erythematous eruption which Dr. F. J. Levisieur diagnosed as luetic. After inunctions and the local application of unguentum hydrargyri, the wound on the index finger healed promptly and the constitutional symptoms abated; during this treatment the roseolar macules on the trunk and extremities became copper-colored and in three weeks disappeared. Following the "Schmierkur" there was energetic treatment with salicylate injections for four years, *i. e.*, from 1905 to 1909. During 1909, 1910 and part of 1911, the Wassermann reaction was performed at intervals of six months and was always negative.

But in October, 1911, after the physician had been in a "run-down" condition for several months, he noticed on the dorsal surface of the tongue, situated about two inches from the tip and half-way between the raphe and left lateral edge, a protuberance of pinhead size, which caused annoyance because it could be felt by the palate. In three days this prominence had increased in size to that of a pea; it was not painful, but was seated on an indurated tender base. Dr. Charles A. Elsberg, Dr. B. S. Oppenheimer and Dr. Udo J. Wile were agreed that the growth was a gumma and that the immediate administration of salvarsan was advisable. For the first time the Wassermann reaction was now faintly positive; performed by Dr. W. J. Heimann. Five hours after the intravenous administration of 0.6 gm. of salvarsan by Dr. Udo J. Wile there was a severe chill, lasting fifteen minutes, and followed by very severe retro-orbital headache, repeated vomiting, diarrhœa and a rectal temperature of 104° F. Within 36 hours after the injection the above symptoms disappeared and the pea-like protuberance was getting smaller. In 48 hours it was less than half its maximum size, and in 72 hours there was no longer any elevation to be distinguished by the patient's lip and palate nor by the examiner's finger, though with the latter an area of induration could still be detected. At the site of the tumor which had "melted away," was to be seen a circular area of discoloration three-eighths of an inch in diameter. In less than one week there remained no subjective or objective evidence to indicate the former existence of the gumma.

Following two months of mercurial treatment and an interval of one month, the Wassermann reaction was negative (Dr. W. J. Heimann), and Noguchi's luetin test, performed by Dr. Martin Cohen, was also negative.

During the following winter (1911) the general health improved greatly, there was a gain of ten pounds in weight and the Wassermann reaction was negative. Though in the fall of 1912 the Wassermann reaction was still negative, as a precautionary measure neosalvarsan (dosage number VI) was given intravenously by Dr. Levisieur. There was a systemic reaction of moderate severity.

In March, 1913, serum tests were performed independently by five serologists: Dr. D. J. Kaliski reported faintly positive, but Dr. Noguchi, Dr. W. J. Heimann, Dr. J. J. Hertz and the New York Board of Health all reported negative. Noguchi's luetin test was again negative.

At the time of writing, the patient feels better and weighs more than at any time since he was infected, eight years ago, and he is studying and practicing clinical medicine in New York City.

**CONCLUSION.** Despite systematic mercurial treatment for four years after extragenital syphilitic infection, there was a tertiary manifestation in the form of a gumma of the tongue, the rapid regression of which followed the intravenous administration of salvarsan.





## ORIGINAL COMMUNICATIONS

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