

up the transverse incision that at first you think you will not do anything else as long as you live. The long oblique incision, however, brings out the liver better. A combination of the two comes nearest to the ideal in a certain number of cases.

DR. WILLY MEYER, New York: I consider this rectangular flap incision to be entirely different from the transverse incision. In gallbladder surgery in particular I would prefer the rectangular flap incision. The retention sutures through fascia and muscle I consider an advantage. This incision can just as well be used in the left side. Particularly in operations near the cardia one will find it giving splendid access. I have employed it so far in one case only and could well work close to the cardia. Access can be further improved by an osteoplastic operation on the costal

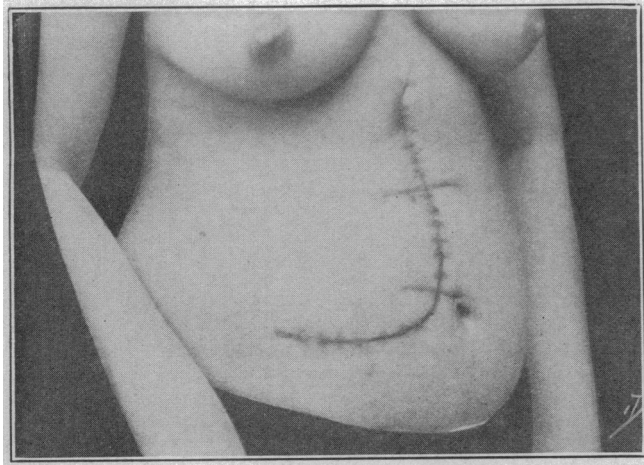


Fig. 18.—Final result. The short transverse scars mark the place of the two upper silkworm-gut skin sutures which had grasped the anterior sheath of the rectus muscle and were left in place for ten days. Securing the fascia in this manner usually is unnecessary, because the two cuts that make up Perthes' incision run at different levels and in different directions, the skin-muscle flap covering like a cap the entrance into the peritoneal cavity.

arch. Of course we will not adhere to any one incision, neither the transverse, nor the longitudinal, nor to the rectangular flap; I think we should practice them all.

### INTRAVENOUS FOREIGN PROTEIN IN THE TREATMENT OF PSORIASIS \*

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In the treatment of chronic skin diseases which often resist the usual therapeutic measures, any new method of therapy that causes a more rapid and effectual disappearance of the lesions is worthy of investigation. This is particularly true of psoriasis, which is widely prevalent, and many times resists our best efforts to clear up the lesions. On account of its obscure etiology most forms of treatment have been used empirically, which probably accounts for the great variety and diversity of the methods employed.

Chrysarobin, first used by Keith in 1877, is probably the best known remedy, but possesses many disadvantages and does not always relieve the chronic cases. In treating these obstinate cases, strong preparations of chrysarobin have been used; but on account of the dermatitis produced, they could not be applied for long periods of time, necessitating an interrupted and

long drawn out course of treatment. Chrysarobin also has the disadvantage of staining the clothing, linen and skin with which it comes in contact. Therefore, any method which will obviate or shorten its use will be of particular value.

Since the exact action of chrysarobin is not understood, it has been difficult to determine what measures will augment its curative effect. The research of Schamberg, Ringer, Raiziss and Kolmer<sup>1</sup> has shown that it has a marked affinity for the proteins of the lesions, especially the scales, but apparently has no germicidal activity. In connection with this study, they also noted that there is a nitrogen retention in psoriasis; however, a restricted protein diet has been tried with only limited success.

In the last four years, intravenous injections of autogenous serum have been employed. At first, this was advocated by Gottheil and Satenstein<sup>2</sup>, Fox<sup>3</sup> and Hilario<sup>4</sup> as being a very reliable and efficacious method in the obstinate and resistant cases, though later reports by Fox,<sup>5</sup> and Trimble and Rothwell<sup>6</sup> indicate that it is successful only as an adjunct to former methods of treatment. Along the same line, Perry<sup>7</sup> has used subcutaneous injections of horse serum with about equal success.

Recently Engman and McGarry<sup>8</sup> used intravenous injections of typhoid vaccine with favorable results. They recommended it for further trial, and it was decided to investigate this form of foreign protein therapy in the dermatologic wards of the Cook County Hospital.

#### TREATMENT BY INTRAVENOUS INJECTIONS OF FOREIGN PROTEIN

Eight cases of chronic psoriasis were selected which were resistant, or were responding slowly, to other therapeutic measures. Previous to the use of the vaccine three patients had been using applications of chrysarobin, one ichthyol, and another arsenic internally, each one without marked improvement. These patients all had generalized lesions of the guttate or nummular types, and in four patients the face and scalp were also involved. The duration of the present attack varied from one to seventeen months. All the patients had had previous attacks, which in four cases had entirely cleared up under treatment, while in the others the condition had subsided somewhat, with lesions remaining up to the beginning of the present attack. These patients remained in the hospital during the entire course of treatment. In the mild cases occurring in dispensary patients, this treatment was not employed, as it was not considered advisable to use the vaccine in patients who would not be under observation during the reaction following the injection.

1. Schamberg, J. F.; Ringer, A. I.; Raiziss, G. W., and Kolmer, J. A.: Summary of Research Studies in Psoriasis, *THE JOURNAL A. M. A.*, Aug. 29, 1914, p. 729; Research Studies in Psoriasis, *Jour. Cutan. Dis.*, 1913, **31**, 698, 802. Schamberg, J. F.; Kolmer, J. A., and Raiziss, G. W.: Germicidal Activity of Chrysarobin, *ibid.*, 1915, **33**, 1; Biochemical Properties of Chrysarobin, *ibid.*, 1915, **33**, 98.
2. Gottheil, W. S., and Satenstein, D. L.: Autoserum Injections in Certain Obstinate Dermatoses, *Med. Rec.*, New York, 1914, **75**, 620; The Autoserum Treatment in Dermatology, *THE JOURNAL A. M. A.*, Oct. 3, 1914, p. 1190.
3. Fox, Howard: Autogenous Serum in Treatment of Psoriasis, *THE JOURNAL A. M. A.*, Dec. 19, 1914, p. 2190.
4. Hilario, J.: A Contribution to the Autotherapy of Certain Diseases of the Skin, *Jour. Cutan. Dis.*, 1914, **32**, 780.
5. Fox, Howard: Human Serum and Blood in the Treatment of Psoriasis and Other Skin Diseases, *Jour. Cutan. Dis.*, 1915, **33**, 616.
6. Trimble, W. B., and Rothwell, J. J.: Treatment of Psoriasis with Autogenous Serum, *Jour. Cutan. Dis.*, 1915, **33**, 621.
7. Perry, A. P.: The Treatment of Psoriasis with Horse Serum, *Boston Med. and Surg. Jour.*, 1916, **174**, 274.
8. Engman, M. F., and McGarry, R. A.: The Treatment of Certain Diseases of the Skin by the Intravenous Injection of a Foreign Protein, *THE JOURNAL A. M. A.*, Dec. 9, 1916, p. 1741.

\* From the Department of Dermatology, Cook County Hospital.

The foreign protein employed in these cases was typhoid vaccine prepared from an active culture, grown twenty-four hours on agar slants, washed off with saline solution, killed by heating at 70 C. for two hours, and preserved by the addition of 0.5 per cent. phenol (carbolic acid). It was diluted so that each cubic centimeter contained 100,000,000.

From three to five injections were given at intervals of from three to four days. The average dose was from 75,000,000 to 100,000,000, the same dose being used for the succeeding injections as for the initial injection. Following the third injection, 2 per cent. chrysarobin ointment was applied daily to the lesions on the body, and 5 per cent. ammoniated mercury ointment to the face and scalp. No internal medication was given.

The reaction following the vaccine was similar to that observed in acute articular rheumatism,<sup>9</sup> except that the rise of temperature and the leukocytosis were not so marked. The succeeding injections were followed by a less marked reaction than the preceding injection. The maximum rise of temperature was to 103 F., and the maximum leukocytosis was 17,600. Headache was noted in two cases, and nausea and vomiting in one case. No other ill effects were observed.

Following the first one or two injections, the lesions became less inflammatory and less indurated, although there was no noticeable retrogression in the extent of the lesions. However, no new lesions appeared. Scaling was also diminished. In two patients who had previously been using chrysarobin, the lesions cleared up rapidly after the injections of the vaccine. In the other patients the condition presented little change until after the application of chrysarobin, following which the lesions disappeared completely in from eight to sixteen days.

The dermatitis resulting from prolonged use of chrysarobin cleared up promptly after one injection of the vaccine. One patient who had been using chrysarobin previously had developed a marked dermatitis. Following the first injection of the vaccine, the itching and erythema disappeared within twenty-four hours. Another patient who had received three injections of vaccine and was using chrysarobin ointment developed a mild dermatitis on the seventh day after the last injection. Following a fourth injection, the dermatitis subsided rapidly.

#### COMMENT

In general, the results of the vaccine were favorable, considering that only chronic and obstinate cases were treated. The mild cases respond readily, as a rule, to applications of chrysarobin, but in the chronic cases more vigorous treatment is necessary, and it is in these cases that the use of the vaccine finds a place.

When used alone, the vaccine does not clear up the lesions, though it diminishes the induration and inflammatory reaction. However, when used in conjunction with chrysarobin the lesions seem to yield more rapidly than under chrysarobin alone. That the vaccine has some influence and the good results are not due to the chrysarobin alone is illustrated by the three patients who had been using this remedy previous to the vaccine. No noticeable improvement was observed with the chrysarobin until after one or two injections of vaccine, when the lesions cleared up rapidly.

9. Scully, F. J.: The Reaction After Intravenous Injections of Foreign Protein, *THE JOURNAL A. M. A.*, July 7, 1917, p. 20.

The treatment is simply symptomatic, clearing up the existing lesions, and offers no permanent relief. Recurrences are as likely to follow as when any other form of therapy is employed.

The use of intravenous vaccines has the advantage of easy administration, but has the disadvantage of a more or less marked reaction following the injection, necessitating that the patient remain in bed for from eight to ten hours. The autoserum injections, on the other hand, can be given in the office or the dispensary, but their preparation requires time and care, with a consequent danger of infection.

The dermatitis which results from prolonged use of chrysarobin is easily cleared up. The skin sensitiveness is diminished, and ordinary medication is more effectual and can be pushed without exciting an inflammatory reaction. When a dermatitis is already present, it disappears shortly after the injection, and

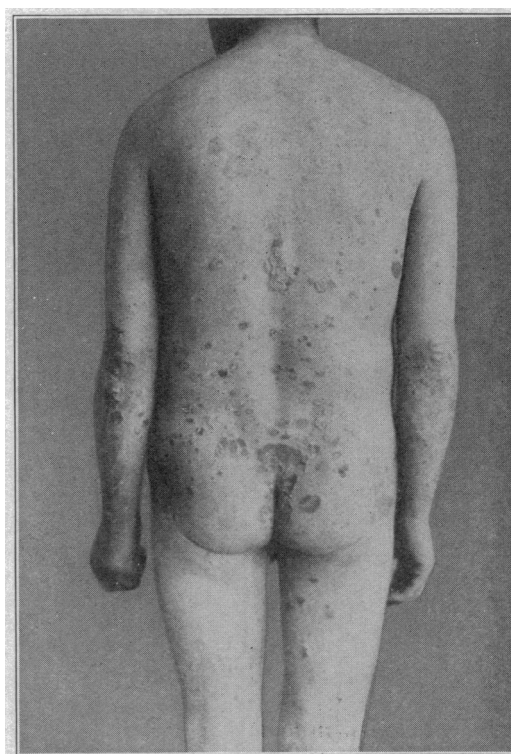


Fig. 1.—Guttate and nummular lesions distributed over the back and buttocks in a case of psoriasis.

local treatment is not interrupted. Spiethoff,<sup>10</sup> using injections of autogenous and foreign serum, points out that those dermatoses which in the course of treatment develop an especial susceptibility to chemical substances are amenable to this form of therapy. Luitlen<sup>11</sup> has shown by animal experiments that inflammatory skin reactions are favorably influenced by parenteral injections of autogenous and foreign serum, as also by colloidal substances, in that the skin sensibility is altered toward the irritants applied to it.

The changes which occur following the intravenous injection of vaccine and which result in the retrogression of the lesions are not fully understood. Whether it is due to a mobilization of ferments, as observed by

10. Spiethoff, A. B.: Die Herabsetzung der Empfindlichkeit der Haut und des Gesamtorganismus durch Injektionen von Eigenserum, Eigenblut und Natrium nucleinicum, *Dermat. Wchnschr.*, 1913, 57, 1227.

11. Luitlen, Friedrich: Veränderungen der Hautreaktion bei Injektion von Serum und kolloidalen Substanzen, *Wien. klin. Wchnschr.*, 1913, 26, 653.

Jobling and Petersen,<sup>12</sup> with changes in the metabolism, or to a dispersion of the colloids<sup>13</sup> with biochemical changes in the serum, is still a subject of inquiry. Engman and McGarry<sup>8</sup> point out that hyperpyrexia may be a factor, as they observed the retrogression of

3. Favorable results were obtained in chronic generalized cases resistant to other forms of treatment.

4. Chrysarobin dermatitis is prevented by the vaccine, and when present yields promptly.

5. The action of the vaccine is not fully understood, but it seems to lessen the sensitiveness of the skin to local medication, allowing uninterrupted treatment.

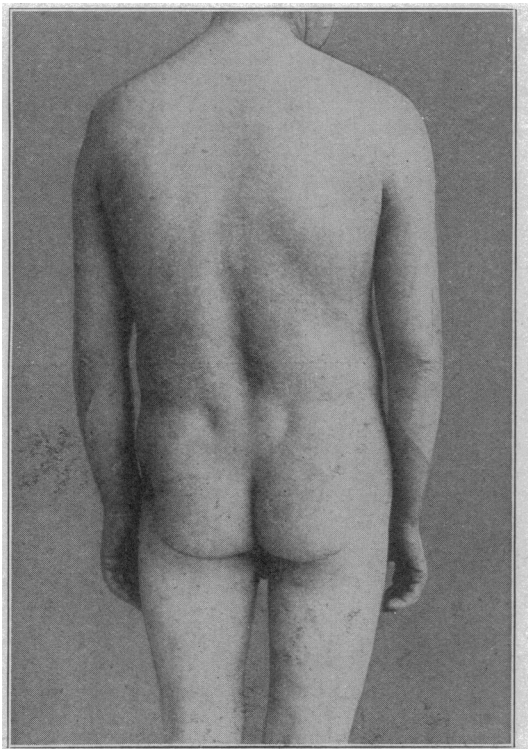


Fig. 2.—Same patient after three weeks' treatment with chrysarobin ointment topically and protein vaccine intravenously. Lesions have cleared up and only slight pigmentation remains.

the lesions of psoriasis in intercurrent infections, as pneumonia and typhoid fever.

If psoriasis were of an infectious origin, the effect of the vaccine might be explained on the same basis as in acute articular rheumatism and typhoid fever, according to the views advanced by Jobling<sup>14</sup> and by Teague and McWilliams.<sup>15</sup> However, careful research by Schamberg, Ringer, Raiziss and Kolmer<sup>1</sup> failed to determine any organism as the causative agent.

It may be, as assumed by Spiethoff,<sup>10</sup> Gottheil and Satenstein,<sup>2</sup> and others who have used the autoserum therapy, that the psoriatic foci are rendered more susceptible to medication, or that the skin is rendered less susceptible to local treatment allowing prolonged and stronger medication without producing a dermatitis. This seems probable from the clinical phenomena and results which were obtained.

#### CONCLUSIONS

1. Intravenous vaccines alone do not clear up the lesions of psoriasis, though they do lessen the induration and inflammatory reaction.

2. When used in conjunction with weak chrysarobin ointment, the lesions clear up rapidly.

12. Jobling, J. W., and Petersen, William: Bacteriotherapy in Typhoid Fever, *THE JOURNAL A. M. A.*, Aug. 7, 1915, p. 515.

13. Jobling, F. W., and Petersen, William: The Nonspecific Factors in the Treatment of Disease, *THE JOURNAL A. M. A.*, June 3, 1916, p. 1753.

14. Jobling, J. W.: The Influence of Nonspecific Substances on Infections, *Arch. Int. Med.*, June, 1917, p. 1042.

15. Teague, Oscar, and McWilliams, H.: Bacteriolytic Power of Normal Human Sera and of Typhoid Patients' Sera for Typhoid Bacilli, *Jour. Immunol.*, 1917, 2, 193.

#### LARGE VESICAL CALCULUS

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Miss A., a rather thin, anemic girl, aged 16 years, consulted me last July as she was troubled with constipation. She gave a rather obscure history of pain in the bladder and lower abdominal region, especially when urinating or having a bowel movement.

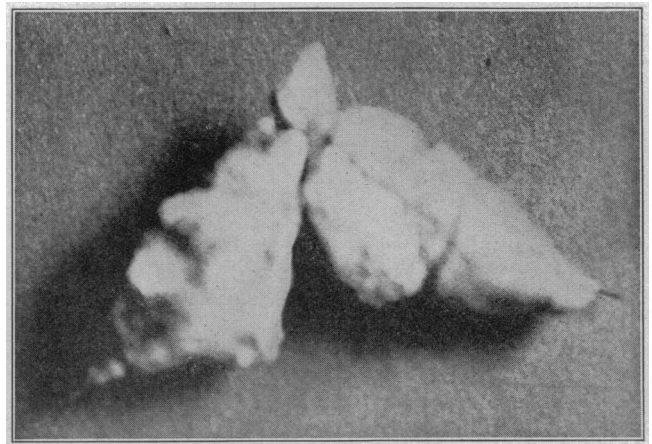
The patient stated that she thought there might be calculi in the bladder and that she had attempted to remove a small stone from the urethra with a hairpin.

A sound, when passed into the bladder, immediately struck a stone apparently at the bladder entrance to the urethra. An operation for removal of the stone was immediately advised, and the patient was removed to Silver Cross Hospital, Joliet, Ill.

A cystoscopic examination revealed the presence of a large stone with a foreign body embedded in it. Suprapubic incision for removal of the mass was determined on and immediately performed. An immense calculus 4 inches in length and 3 inches around several different circumferences was removed. The calculus had grown around a hairpin as a nucleus. The hairpin was lying in the bladder in a widely extended obtuse angle, and was covered with the deposit to within about a quarter of an inch of each end. The mass tapered from the center toward each point.

The bladder was thoroughly irrigated, the wound closed, and a retention catheter inserted. Daily irrigations were instituted, and an uneventful recovery followed.

The accompanying illustration shows the exact size of the calculus, although portions of it crumbled during removal. The length of time that the hairpin had been in the bladder could not be determined, but the enormous size of the cal-



Vesical calculus formed around a hairpin as a nucleus.

culus would indicate that it must have been there for months, perhaps years.

**Selective Gymnastics.**—The director of hygiene of the Dayton, Ohio, schools has recommended to the school authorities a plan for gymnastic instruction of the school pupils on a selective plan. The children will be divided into groups after careful physical examination, and each group given such exercises as are adapted to their strength, requirements, etc.