

"In six cases which were followed in order to observe the effect on the *Spirochæta pallida* in open lesions, the organisms were seen to disappear in from five to twelve hours."

The consensus of opinion seems to be that the drug is invaluable for the treatment of patients who cannot tolerate mercury. In any case it should be given in combination with other drugs, except where it is contra-indicated. It kills the specific organism in the tissues more rapidly than mercury does, but may with advantage be followed by a course of mercurial treatment when this can be borne.

The use of salvarsan is contra-indicated when there is severe cerebral disease, cardiac affections and arteriosclerosis. It is said that it should not be used when diabetes is present, nor in any condition in which the body is much enfeebled.

Its effect on the optic nerve was feared, as different arsenical preparations have caused amaurosis, and it has been found not to be entirely free from injurious influence on the nerves in the orbit. This, however, seems to be rarer than might have been expected, and there is a question whether the affection was not due to syphilis, or to some previous treatment with arsenic in another form.

One physician in reporting its use says, "While attention was fixed on the eye the ear seems to have suffered, as since the introduction of salvarsan an unusual number of troubles with the vestibular apparatus have been observed in early syphilis. It would seem that the arsenic in salvarsan acts true to its kind, and we cannot entirely escape the predilection of this metal for nervous tissue."

The intolerable pain sometimes experienced when salvarsan is introduced into the system shows that the arsenic is acting on the nerves.

It seems to possess the tonic effect of other forms of arsenic, many who have employed it testifying that their patients have gained in weight, strength, appetite, and general well-being under its use.

Salvarsan has now been in use for more than a year, and it is interesting to note some of the conclusions that have been arrived at concerning it.

One observer says, "Salvarsan in its present form can never become a popular remedy. Paul Ehrlich, however, is so ingenious that any day he may invent a modification that will be more easily administered and be even less toxic."

"The intravenous method of administering it constitutes a surgical operation demanding skill, intelligent care and the strictest anti-

septics," since salvarsan itself is not an antiseptic. The solution must be made with extreme care and must be perfect. It cannot be given by the mouth.

In giving it intramuscularly there is sometimes induration at the point of entry which causes much inconvenience. In one case the accumulation had to be cut out and 80 per cent. of the drug that had been injected remained unabsorbed and was removed.

It has been observed to have no disturbing effect in pregnancy.

In the most pathetic cases of syphilitic infection, the hereditary, it is conceded that the infant should nurse a mother who has been treated with salvarsan or a syphilitic nurse who has received it.

The child may be fed with the milk of a goat which has had an injection of salvarsan, or of a cow that has been similarly treated. It is suggested that the arsenic may undergo some modification in the body of the animal that renders it harmless to the child.

In some forms of syphilis the injections have entirely relieved patients who were suffering agonizing pain.

One observer says: "Whether or not salvarsan will cure syphilis remains to be seen, but it must be admitted that it will do some things that mercury will not do, and therefore must have a place in our therapeutics."

---

## MODERN METHODS OF TREATMENT AND THE NURSING PROFESSION.

---

### RADIUM RAYS AND RADIUM EMANATION.

The advancement of modern science places an additional burden on the shoulders of the nurse by requiring her to keep herself informed of such new methods of treatment as are continually being introduced. Not only has she to be acquainted with the more intimate details of her profession, but she has to possess also something more than a superficial acquaintance with such remedial agents as the X-rays, radiant heat, ionic medication, and treatment by means of both radium rays and radium emanation.

There are potentialities about radium treatment that are becoming daily revealed. For enlarged glands, pruritus, certain forms of malignant growths, angiomas, and many other diseased conditions radium rays have proved of decided efficacy, whilst the emanation (or gas), as His has shown, when breathed into the lungs

[previous page](#)

[next page](#)