

MEDICINE

Dyes Raise False Hopes In Leprosy Treatment

Leprosy Authority Says Brilliant Coloring Substances Not Effective; How Disease is Transmitted Still Unknown

THE RECENT report of the "cure" and "control" of leprosy through treatment with various dyes is an example of a spectacular method of disease treatment that does not fulfill the original claims made for it, Dr. E. B. McKinley, dean of the George Washington University School of Medicine, commented in response to a request by Science Service.

"Here is one of the most tragic diseases known to man, the social and economical implications of which are extremely profound," Dr. McKinley said. "To raise false hope in these patients is not only inhuman but therapeutically detrimental to them since the mental attitude of these patients towards their course of treatment is an important factor in their clinical progress. A new disappointment does not contribute to their morale."

So far as is known dyes for the treatment of leprosy were first employed in the Philippines about twelve years ago, according to Dr. H. Windsor Wade, Medical Director of the Leonard Wood Memorial and Editor of the *International Journal of Leprosy*. This work was not followed through to any definite conclusion.

Preliminary Report Hopeful

In June, 1933, Dr. Gordon A. Ryrie, Medical Superintendent, Federal Leper Settlement, Sungei Buloh, Federated Malay States, reported upon the use of various dyes, such as trypan blue, brilliant green, fluorescein, eosin, methylene blue, crystal violet, and many others in the treatment of leprosy. Intravenous injections of these various dyes were given to a total of 85 patients. Dr. Ryrie reported that with a few of these dyes there seemed to be a definite diminution of the "external manifestations of leprosy" which were "accompanied by other signs of clinical improvement." However, Dr. Ryrie requested that his report be considered "preliminary" in nature and suggested further trial.

By October, 1933, four months after this first report, Dr. Ryrie stated in the *International Journal of Leprosy* that he did not think that the experiment had reached the stage at which it is of therapeutic value, for he had found that about forty per cent. of those patients who improved during treatment with the more successful dyes had definitely relapsed, the lesions of leprosy appearing on the same spots from which the old ones had retrogressed, or partially disappeared.

Commenting upon this work of Dr. Ryrie, the editor of the *International Journal of Leprosy* stated that "Even if dye therapy may not produce complete cures, it may well prove to be highly advantageous if in any proportion of

cases it will cause rapid recession of lesions to a certain point, provided that improvement can be continued from that point by more ordinary, slower methods." However, he also stated, care should be taken lest extravagant expectations be aroused on the part of patients and the public at large during this uncertain, experimental phase of the matter. In this Dr. McKinley expressed hearty agreement.

More recently a new claim has been made that a dye treatment will prevent or lessen the contagiousness of leprosy. This is manifestly an extravagant claim and one entirely without foundation for, as yet, we do not know how leprosy is transmitted from patient to patient, Dr. McKinley said. If leprosy is contagious, as we believe, it is only mildly so and such claims as these, not founded upon scientific demonstration, are not to be taken seriously either by physicians or the public.

That various dyes may eventually prove to be useful in the treatment of leprosy is possible but for the present it must be stated that their use has not been acceptably established and the work so far reported is only suggestive. Dr. McKinley therefore suggested that



CLOUDS SHOW HOW THE WIND BLOWS

There are no straws to show how blows the wind in the upper air, but there are clouds. By studying their reflections on the black glass of the instrument called the "nephoscope," meteorologists can gain information about direction and velocity of winds high above the mountain-tops; this is of value to aviators and weather forecasters. The nephoscope is playing an important part in the present International Cloud Year. The cloud prominent in the above picture is of the type known as lenticular strato-cumulus; it is very rare except in mountainous regions.

false hopes should not be raised in the minds of these patients or the public.

"It is perhaps only natural that new and spectacular methods of treatment and control of human diseases should be given prominence in the daily press," Dr. McKinley commented. "More frequently than not, however, such new cures and spectacular methods of control are later found to reach far short of the original claims which have been made for them. This has been experienced over and over again in the case of cancer—and is so true in this particular instance that, up until the pres-

ent at least, it has been possible to say, upon reading such extravagant reports—'of course this is untrue.'

"The very odds against the truth of such reports makes the doubt of truth practically a sure wager. Such stories, however, not founded upon fact and careful scientific judgment and control, have their tragic side particularly for those unfortunate individuals who are victims of the disease in question. New hope is raised which is turned quickly into a further disappointment when the true situation becomes known."

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PSYCHOLOGY

Motion Pictures Sway Moral Attitudes of Children

Young Audiences Tend to Approve Actions of Film Characters, Regardless of What They Do

MOTION pictures change the moral attitudes of school children, and changes in the direction of laxer standards appear more frequently and last longer than those in the direction of stricter standards, it is shown by an experiment reported to the New York meeting of the American Psychological Association today by Dr. Vernon Jones, of Clark University.

Four regular theatrical pictures were used in the experiment: "The Champ," "Fast Companions," "Abraham Lincoln," and "Tom Brown of Culver." Three large 7th grade classes of public school children, totaling 140, took part in the experiment. Half the children were taken en masse to a theatre to see the films; the other half remained at school.

Questions designed to reveal the attitudes of the children, some of them affected by the films and some not, were asked all the children before and after the film showing, and half a year later.

The greatest changes in attitude were in connection with those attitudes affected by the pictures shown, and in the direction to be expected from the nature of the emphasis in the picture.

"In the film, 'Fast Companions,' a young boy is shown stealing food on several occasions, and this is always treated with a mixture of humor and sympathy," Dr. Jones related. "One of the items on the test was, 'H steals something to eat if he is hungry.' The

rank assigned this item after seeing the picture changed more than that for any other item in the test, and naturally it changed in the direction of considering this behavior more excusable.

"The emphasis in a picture is determined not only by the acts performed but also by the total personality of the actor. For example, in 'Tom Brown of Culver,' the hero did many praiseworthy things, but he was notably lacking in courtesy and agreeableness. On the test following the picture, we find the importance of courtesy and agreeableness to have decreased."

In the film "Abraham Lincoln" the character of Lincoln was exalted. The average rank assigned to Lincoln by the group who saw the film was decidedly higher after the showing of the film. The attitudes of the others remained unchanged.

In three out of five items, the change of attitude caused by the film was completely lost after a half-year's time. In the others there was partial loss or no loss. The changes that were maintained best were those in the direction of laxer standards. The change in favor of Lincoln was one that was lost completely, but on the following item the change was maintained 100 per cent.: "D lied out of something wrong which he did and thereby protected his family from the disgrace which it would have caused."

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HISTORY OF EDUCATION

Bathtubs And Science Entered College Together

BATHTUBS and recognition of science won their places in the conservative colleges of Great Britain at about the same time. With a chuckle over "this interesting coincidence of sanity and sanitation," Dr. H. T. Tizard, chairman of Britain's Aeronautical Research Committee, illustrated an address on Science at the Universities with reminiscences of his early education during Queen Victoria's reign.

"I was at a public school at a time when to take an interest in science was held to be a sign that you were not quite a gentleman," said Dr. Tizard. A "public" school in England corresponds to the more exclusive kind of "private" school in America. "At my school there were 'close' scholarships to Oxford and Cambridge, but I was soon given to understand that these were not available for boys on the science side. . . . It does not seem so very long ago to me; yet the changes that have taken place since then are so profound that it is now considered quite respectable to be a scientist, even at a public school."

The extent of the swing of the pendulum of the British public's esteem for science has an index in the number of students now engaged in scientific study, and the willingness of Parliament to grant financial support.

"There are now about 50,000 students in the universities of Great Britain, half of whom are studying some form of natural science," the speaker continued. "This growth has been only made possible by the provision of public money; all universities in this country are now dependent on the taxpayer and ratepayer. The State alone provides annually for university education a sum nearly ten times as great as was provided before the war; and local government bodies, in addition to their direct contributions, find large sums for maintenance allowances to students.

"The student of science has to be provided with laboratories, where he consumes power, heat, light, and expensive material. He is in consequence the most costly of university students: I estimate that the public expend, in one way or another, nearly £200 a year on each student of science, with the possible exception of students at Oxford and Cambridge, who are more richly endowed from private sources."

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