

THE JOURNAL
OF THE
Philippine Medical Association

*Devoted to the Progress of Medical Science and to the interests of the
Medical Profession in the Philippines
Manila, Philippines*

VOL. XXII

MAY, 1946

NO. 5

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Original Articles

INVOCATION¹

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O Lord, Almighty God, Creator of heaven and earth, and of all things visible and invisible; Who created man after Thy own image and likeness and made him king and sovereign of the universe; Who gave man paradise for his habitation, where he would have lived forever, without knowing and doing evil, perfectly happy and free from corporal ills, had he not prevaricated and disobeyed Thy commandments, whereupon Thou didst banish him from paradise and condemned him to physical labor and all kinds of corporal ills and death: deign to look with benign eyes on Thy servants here congregated; bless their work and enlighten their minds in their discussions and in their efforts to do good to ailing humanity, to improve remedies already known, and to discover others more efficacious, so as to alleviate and cure the many maladies and sicknesses that afflict humanity that Thou hast redeemed with Thy blood; make those who suffer and are cured realize that every good comes from Thy omnipotent hand and wise providence, so that they will render praise and recognition of Thy benefits and repent for their sins, which are often the cause of the pains and ills of the body.

Deign to bless Thy servants, the members of the Medical Association of the Philippines, here congregated who, as good Christians, recognize that all science and all knowledge come from Thee, and that no matter what efforts, no matter what inventions, man will never attain the cure for the pains of the body without Thy help, Thou who art Lord and Master of the lives of men.—Amen.

¹ Delivered before the Opening General Session of the 39th Annual Meeting of the Philippine Medical Association, May 8, 1946, Manila.

WELCOME ADDRESS¹

JOSE Y. FORES, M.D.

President, Manila Medical Society

The post-war world left an imprint on various aspects of the medical profession. Psychologically, the former restrictions to freedom which scarred our thoughts are still with us, and the different measures we were forced to adopt have now become limitations to a constructive undertaking. Physically, a large percentage of the people have been maimed with constitutional deficiencies and injuries. Mortality due to disease has increased as the inevitable aftermath of the war. The long period of want and starvation among our people has increased cases of malignancy and tuberculosis.

The obstacle in obtaining materials both for individuals and institutional work will, no doubt, be evident in the next three years. The material destruction of our cities and even of our remote "barrios" has upset the former well-planned and organized standards of our sanitation; such as, proper sewage disposal, safe drinking water system, thorough inoculation of the masses against various infectious diseases, and isolation of cases of contagious diseases. There are innumerable and seemingly insurmountable problems and actualities which we, the members of the medical profession, have to meet with tact, prudence, and intelligent planning, if we are to help develop healthier Filipinos for a great Philippines.

Our pre-war component medical organizations in Luzon, the Visayan Islands, and Mindanao were well organized. It is now one of the main purposes of this convention to stimulate the revival of these societies. The members of these provincial groups should strive to help their patients professionally and to serve as their guides in civic affairs. The masses—including a number of the more fortunate among us—have been repeatedly victims of obnoxious propaganda. They have become susceptible to psychological effects mostly due to improper guidance. If we wish to work for the benefit of humanity in our respective provinces, municipalities, or barrios, we should act, not only as disciples of Aesculapius, but also as leaders in the propagation of democratic ways of life.

This dual role for our profession will truly bring happiness and security to our people, because peace in the hearts of men is a determining factor in the progress of agriculture and industries, which, in turn, will bring forth bountiful produce to nullify the present food deficiencies. Leaders of our government will be helpless if they have to work with citizens worn down by disease and avitaminosis. Our best scientists, in collaboration with clinical men, should study and recommend a well-balanced diet with enough calories to maintain health. The government should commence a building program, not only for roads, but also for the reconstruction of general hospitals, sana-

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toriums, and maternity houses for the poor. We need them and we must use them to improve our race and to increase the average life-term of our population. The Filipino average life of 40 years should be raised to a point comparable with the average life of healthier nations.

In this global war, history has repeated itself. Science has been stimulated to greater heights of achievements. The art of medicine has remained way ahead with outstanding improvements. But, in spite of these rapid strides, cancer and tuberculosis still claim a high percentage of our people. We must bear in mind that our casualties in the battlefield are far smaller in number than our deaths due to tuberculosis.

An extensive educational program, similar to that conducted in the United States, may be the answer to our problem. It is for our different societies to enlighten our patients—parents and children alike—in the various precautions and treatment to avert disease. Our brothers in the profession who assume leadership in the health agencies of the government should adopt measures to foster this plan. Prevention in connection with this malady is still the best known cure; it is a thousand times more effective than millions of calcium injections.

Cancer has an increasing percentage of mortality in our cases. Most of these cases are brought to our attention only after they have reached grade II or grade III. Cancer of the uterus, together with cancer of the breast and stomach, ranks high in our census. We know also that surgery combined with radium and deep X-ray therapy is at present the best approach to a five-year cure for this ailment.

We know that early diagnosis of this disease is a potent factor in the success of our treatment. All the members of the medical profession, the family physician, the roentgenologist, and the surgeon should work in coordination if this problem is to be attacked properly. We must recommend a proper census of this malignancy, as is being done by the cancer institutes in America, so that comprehensive data may be available to every one. It would be admitting backwardness in our institutional progress to neglect the value of such coordination.

I have given some of my opinions on the utilization of all our professional powers for improving the health of our people. I hope these ideals will open the minds of our colleagues, even arouse criticisms and provoke amendments; for thus alone would I consider my words to have reached their mark.

In the name of the Medical Society, I would like to extend our appreciation to Rector Jordan, Father Diaz, and the University of Sto. Tomas for their valuable help in making this Convention a success.

I thank you.

THE PHILIPPINE MEDICAL ASSOCIATION: RETROSPECT AND PROSPECT

PRESIDENTIAL ADDRESS¹

VICTORINO DE DIOS, M.D.

President, Philippine Medical Association

Five years ago the members of this body and the delegates to its 38th Annual Convention gave me the responsibility of being President of our Association. Whatever accomplishments may have been made by our Association during the last five years have been due mainly to your loyal support, cooperation and guidance and to those of the constituent societies which you represent. War time conditions prevented us from holding our usual annual conventions and forced me to remain at the helm of our association for five long years. I feel it is now my duty to give you the high lights of my administration during the pre-war period, during the occupation, and after the liberation.

Pre-War Period

During the pre-war period of freedom of thought and action, when we could still live our own way of life, the different societies wrote new pages in the history of medicine in the Philippines. Annual conventions and monthly scientific meetings were held in different places with enthusiasm and good attendance. I was honored by having been invited to some of these conventions.

I was impressed by the prevailing spirit of cooperation and brotherhood among the members, by the great desire of everyone to learn what was new in medicine, and by the sincerity and earnestness of purpose of the members in solving their local problems for the welfare of doctors and patients alike. They are trying to live up to the greatness and nobleness of the medical profession, but I could feel and perceive everywhere that there was something hidden in their minds and hearts which they could not expose by reason of delicacy and self-discipline.

They were thinking perhaps of the unequal treatment that physicians in the government service were being given. The government alone can solve this problem, and I think that the solution is forthcoming from the new administration.

Stand of the Philippine Medical Association During the Enemy Occupation

When the war clouds in Europe were approaching our country, the Philippine Medical Association offered its services to the government and stood ready to cooperate to the limit of its ability in all measures of medical service and national defense. A committee on medical preparedness was organized which served as a

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center of information regarding the status of the members. The committee worked jointly with the National Committee in the Department of the Interior.

Then suddenly, early in the morning of December 8, 1941, thundering news was spread that Japanese planes had bombed Pearl Harbor treacherously. Several hours later Japanese planes dropped bombs indiscriminately over Manila.

This marked the beginning of the second period of my administration. It was characterized by suppression, apprehension, brutalities and resistance. Our Council, aware of the brutalities and paganistic ideologies of the enemy, decided in a meeting to suspend all activities of the association, so that it might not fall under the enemy's influence and control. The enemy, we feared, might use our association as a means of propaganda to sever our fraternal relations with the American people. But the Council continued holding its meetings with rigid precaution and careful deliberation. It usually held its meetings in "Bahay Kubo" under the very noses of Japanese officials.

On several occasions, the enemy asked, rather surprised, why our medical societies were inactive. I was enjoined to reactivate our Association. But I was able to get out by the backdoor, as it were. In spite of pressure, I did not call any meeting.

In 1943, a conference on medical science, sponsored by the Japanese Military Administration, was held in Manila. In one of the meetings of the executive committee, a motion was presented that the Philippine Medical Association should give a tea party in honor of the guests from Japan. I immediately opposed the motion on the ground that the President was not authorized to act on any important matter without consulting the Council. The party was given, but not under the auspices of the Philippine Medical Association.

During the enemy occupation, medical practice was practically disorganized due to enemy restrictions and deception and due to lack of medical facilities and supplies; but some of the physicians were very resourceful. They substituted local plants for some drugs. But our medical knowledge, not only remained stagnant, but also deteriorated. For all scientific meetings were suspended, and we were severed completely from other medical centers—at precisely the time when medical service was needed most by the people, because they were dying of starvation and illness.

The physicians themselves were wearing down their bodily resistance. But despite their hardships, they did not forget their self-imposed obligation and humanitarian duties of the suffering masses. They rendered services to the limit of their ability; despair and defeatism never came to their minds.

There were two things that kept our morale high and our body strong. They were Faith and Hope, the same ideals which sustained the American Armed Forces. But the enemy's atrocities, such as the massacre of innocent and inoffensive civilians, took their toll in the medical profession.

Rehabilitation of Medical Societies After Liberation

Immediately after our liberation, the doctors mobilized their forces. They grouped themselves and improvised clinics or infirmaries for the suffering masses. The arrival of the American Forces was providential. Otherwise, the fate of the Fili-

pino people in the hands of the enemy would have been total destruction. The Americans made great sacrifices in lives for our liberation. Therefore it is our bounden duty to express our undying gratitude to the American doctors in particular, to the American Forces in general, and to the great nation they represent.

As soon as conditions warranted, I sent invitations to all physicians living in and around Manila to a general meeting for the resumption of the activities of the Philippine Medical Association and its component societies. After the meeting, a circular was sent to all presidents of the component societies urging them to reorganize.

I am happy to say that they responded splendidly to our call. They began to organize and hold scientific meetings. New component societies were organized. Among our members there is a great desire to learn what is new in medical service. They have taken advantage of the presence here of U. S. Army doctors whom they have invited to speak on new advances in medicine. I wish to make a public acknowledgement of the fact that the Army doctors have helped us scientifically, materially, and morally to rehabilitate our practice; and I wish to reiterate our profound gratitude to them. I hope we shall be given a chance to reciprocate.

Among the important events in the history of the Philippine Medical Association after the liberation is the establishment of the Philippine Ophthalmological and Otolaryngological Society. It has affiliated itself with the Philippine Medical Association as the section on EENT specialty. According to its constitution, its members must also be members of the P. M. A. This Society will expand the scientific activities of the P. M. A., and it is another solid cornerstone on which our Association stands.

Other newly-formed societies are the Philippine College of Surgeons and the Manila Roentgen Society. The organization of these bodies is a healthy indication of the promotion of the science and art of these branches of medicine, and the organizers should be congratulated.

I wish to point out, however, that we are still too few to be able to establish many medical societies independent of the P. M. A., without hampering the scientific activities of the mother society. I think special medical societies can propagate the science and art of their respective specialties better and among a greater number of physicians, if they would affiliate themselves with the P. M. A. Then all the members would have a chance to hear their scientific discussions.

Economic Problems of the Medical Profession

Now that the war is over, we have to reconstruct and rehabilitate what has been damaged and lost. But reconstruction cannot be effective and successful, unless some old problems of the medical profession are solved first.

Among these is the economic problem. During the few years before the war, our physicians wrote a new page in the history of medicine. Progress was made in both preventive and curative medicine. All these achievements are for the welfare of the people. But, it is lamentable to note that the physicians' efforts and sacrifices are generally not adequately recognized, and compensated. Their remuneration is not commensurate with the importance of their work in the community.

To make my point clear, allow me to make comparisons that speak for themselves. For example, the chief of the different departments of the City of Manila receive higher

salaries than the Chief of Medical Department. A regional medical inspector receives only from P2400 to P4500 per annum, while an inspector fiscal receives from P8000 to P9000. The public defender receives a minimum salary of P150 while a physician in the health department gets only P100. The highest salary a physician can get in the government is P12,000 a year, but that position can be held only by one person. Other professionals like lawyers and public accountants receive as high as P18,000 a year.

These are only a few instances which illustrate the unequal treatment the physicians get in the government service. But this is not all. Conditions outside the government are even more pitiful. Everyday is a problem to our doctors.

This is an old problem which, due to the present high cost of living, has become really serious. I wonder how some of our colleagues, with their meager salary, keep their body and soul together.

Notwithstanding their financial worries, the physicians are rendering services to the people. But the government should give serious consideration to this problem. For its solution, I suggest that we make our Association a strong and militant organization which can demand respect and exert pressure and influence on our government, especially on the Philippine Congress for the passage of some laws which would give better treatment to the medical profession.

Medical Service in the Community Should Include Laboratory Facilities

Another problem of importance which concerns both the general practitioners and the patients is that of laboratory facilities. It is the function of the government to promote the health of the people by adopting certain measures, such as raising the standards of living, providing proper housing, and fighting and controlling sources of infection. All these measures will not bring fruitful results, however, if diseases are not diagnosed early and treated properly. Preventive medicine is the province of the government; and curative medicine, of the general practitioners whose services can be improved greatly with laboratory facilities.

The general practitioners render medical services under many unfavorable circumstances. The majority of their patients being house patients, they are called only when the case is already far advanced. In some instances, they are not supposed to visit patients unless they are called for. Consequently, they cannot follow the cases. Their problem is further complicated by lack of laboratory facilities accessible to the poor patients and available to medical practitioners.

It cannot be denied that some government institutions furnish laboratory facilities to medical practitioners, but not all laboratory examinations can be made available upon request. They are not, in fact, accessible to all indigent patients.

Delayed medical attendance and delayed diagnosis may cost the life of the patient, or complete cure is delayed and sometimes rendered impossible. Medical practitioners cannot be held responsible for this. For many diseases like TB, typhoid, and others cannot be recognized promptly in their early stages by clinical symptom alone. In treatment as in blood transfusion, laboratory facilities are also indispensable.

It must be borne in mind that these laboratory facilities are only for indigent patients. Since medical practitioners represent about 60% of the number of physicians, and in behalf of the sick, I advocate that the government provide every com-

munity with laboratory facilities for the use of patients and doctors. The government can even charge nominal fees.

I believe that this venture will prove most profitable to the government for the following reasons: (1) early diagnosis makes early proper treatment possible, thereby shortening the course of the disease; (2) since communicable diseases are detected and controlled early, the medical services become less expensive. Medical service is thus improved for the benefit of the patient. The government alone with its present system cannot render medical service needed by the masses. It is the general practitioner who renders service day in and day out to numberless people, rich and poor alike.

The general medical practitioners represent about 60% of the total number of physicians in the Philippines and are rendering service free to poor people. Therefore it is only proper that the general practitioners receive aid from the government by providing them with laboratory facilities.

Role Played by Medical Profession in the Past War

In reviewing the war that has just ended, we must give due credit to the medical profession. Doctors are indispensable comrades of the fighting soldiers and the civilians. If we could only have a bird's eye, we would be able to see the panorama of human suffering from brutality, starvation, and bullets and bombs being alleviated partly by members of the medical profession. Some of our colleagues took up arms and shed blood in Bataan; others, for their patriotic ideals, died a heroic death in the cells of Fort Santiago; while still others were either massacred or tortured. Those who gave up their lives for our country should top the list of the nation's Roll of Honor.

We who survive should draw inspiration from the deeds of those who passed away so that the loss of their lives should not be in vain. Let us pray for the souls of those who passed to the Great Beyond. Let us thank the Almighty for saving us from the enemy's brutality. The nation has great need for us physicians in these years of moral and physical reconstruction. Let us rally to our country's call and give her that same service we so generally rendered during the trying days of the war.

I thank you!

THE RH FACTOR: INCIDENCE AMONG FILIPINOS¹

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The study of intra-group transfusion reactions have led to important discoveries. The first is the role of a new agglutinin, described by Landsteiner and Wiener and called the Rh factor, which is probably responsible for 90% of the intra-group transfusion reactions. The second followed soon after this epochal work, when Levine explained the pathogenesis of the disease entity known as erythroblastosis, now better called hemolytic anemia of the fetus and the newborn, as an antigen-antibody reaction occurring during the intrauterine existence of the fetus and in most cases due to the iso-immunization of the mother by the Rh antigen found in fetal blood.

The first observations on the differences between the bloods of human beings were made by Landsteiner in 1900, when, by means of agglutination reactions, he was able to divide human beings into three distinct groups—A, B, and O. Von Des Castello and Sturli discovered the fourth and rarest group. Four blood groups are now described, and two subgroups in group A and AB. In 1927, Landsteiner and Levine demonstrated two agglutinogens unrelated to the A and B agglutinogens, which they called the M and N agglutinogens.

Using agglutinogens A₁, A₂, B, M, and N, eighteen types of human bloods are made out. Landsteiner and Wiener, pursuing the problem still further, immunized rabbits with Rhesus blood and obtained agglutinogens different from the A, B, M, or N. This factor was called the Rh factor, because the first serum for testing this blood characteristic was prepared by immunizing an animal with the blood of the Rhesus monkey.

Using this serum, it was possible to divide individuals, irrespective of their blood group. Eighty-five percent of the random white population possess the Rh factor; as Rh positive, and those who do not have the Rh factor known as the Rh negative group. Eighty-five percent of the random white population possess the Rh factor; 15% are Rh negative.

This agglutinin is believed to be carbohydrate in nature and fixed to the proteins of the red cell. It is transmitted as a simple Mendelian dominant. The dispersion of the Rh factor does not vary significantly among any of the blood groups, and it appears to be evenly divided between the sexes. The Rh type is a constant characteristic of the individual and is fully developed at birth, being present in the blood cells during fetal life.

Landsteiner and Wiener, in their original study, obtained the anti-Rh immune

¹ Read at the 39th Annual Meeting of the Philippine Medical Association held May 10, 1946, Manila.

serum by immunizing rabbits. This serum, they later found, was better produced in guinea pigs. Anti Rh serum may be obtained from human beings who have had intra-group transfusion reactions or from individuals who have been delivered of infants with erythroblastosis. The sera obtained in this manner do not always give the same reactions as the guinea pig anti Rh serum.

Thus several varieties of immune sera are described. One variety which reacts identically as the guinea pig serum is called the standard anti Rh or Anti Rh₀. The second which agglutinated 70% of the random white population is the anti Rh₁; a serum agglutinating only 30% is the Rh₂. Two other varieties containing more than one anti Rh type are described—one which possesses the agglutinins anti Rh₀ and anti Rh₁ and known as anti Rh₁₁, and a second designated as anti Rh₁₁, which possesses agglutinins anti Rh₀ and anti Rh₂.

The clinical importance of the Rh factor arises from the fact that, unlike the M and N agglutinogens, the Rh factor is a fairly good antigen for some individuals. It is held responsible for most intra-group transfusion reactions and most of the cases of erythroblastosis fetalis.

The role of the Rh factor in intra-group transfusion reactions is readily understood. The ordinary cross matching tests will not demonstrate the presence or absence of the Rh factor. Consequently, should an Rh negative individual be transfused with Rh red blood cells, agglutinins against the Rh factor are developed in the recipient's system. No reaction is noticed following the first transfusion, unless the recipient is a woman who has given birth to an infant with hemolytic disease. The RH negative individual who has received Rh positive blood at the end of five days will have developed immune bodies against the Rh factor; and a second transfusion with Rh positive blood will result in a severe, if not fatal, reaction. That these intra-group transfusion reactions are not so frequent as may be expected, arises from the fact that not every Rh negative individual becomes sensitized upon exposure to the antigen.

These intra-group transfusion reactions are more commonly associated with pregnancy, and in pregnancy characteristically in the first transfusion. Moreover, the incidence of still births, hydrops fetalis, icterus gravis, and congenital anemia in the new born among children born of Rh negative mother is startlingly high.

The concept of iso-immunization of the mother by a hereditary dominant blood factor, the Rh factor, was presented by Levine. The theory that iso-immunization during pregnancy produces pathological conditions in this state is not new. In 1905 Biens suggested it to be the cause of eclampsia. Ottenberg, in 1923, presented the same thesis. In 1938, Darrow believed erythroblastosis to be the result of an antigen-antibody conflict. Levine and Stetson, in 1939, were the first to point to the Rh factor as the agglutinogen in question.

Hemolytic anemia of the fetus and the newborn depends on the iso-immunization of an Rh negative mother by a dominant hereditary factor in the fetus. This antigen is the Rh factor. The invasion of fetal red cells containing the Rh factor inherited from its positive father through some break in the placental barrier results in the production of anti Rh bodies in the mother. These immune bodies of the mother go through the placenta into the fetal circulation, causing destruction of the fetal red cells.

The fetus responds by stepping up its production of red cells, as evidenced by extra medullary centers of erythropoiesis and by an abundance of nucleated cells in the circulation. The destruction of red cells results in anemia, icterus, and edema.

Depending on the degree and duration of iso-immunization, a wide variety of clinical syndromes then arises, from the enormously bloated infant in hydrops fetalis, the markedly jaundiced one in icterus gravis, or the milder forms of anemia. Characteristically, however, all forms exhibit centers of extramedullary erythropoiesis hepatomegaly and splenomegaly and anemia. The placenta appears immature, the Langanh cells partially persisting. The stroma may be either hydropic or hyperplastic. The fetal blood vessels show numerous nucleated red cells.

The obstetrical career of these Rh negative mothers follows a fairly uniform pattern. In 90% of the cases the first child is usually normal. The second and third pregnancies may result in the delivery of children born apparently healthy but in a few hours exhibiting anemia or developing an intense and quickly deepening jaundice. These infants die unless transfused repeatedly and early. Subsequent pregnancies may result in the delivery of still-born fetuses exhibiting hydrops fetalis.

The incidence of erythroblastosis varies from 1 in 500 to 1 in 2000 pregnancies. The relative infrequency of the disease is the result of the fact that, as in blood transfusion reactions due to this factor, not every Rh negative individual is readily immunized. Moreover, other factors play a part. Variations in permeability of the placenta or a break in its intactness as a barrier, which allow the invasion of the Rh positive fetal cells into the mother, must be postulated. Another reason is that the fathers may be heterozygous and do not transmit the Rh factor to all their children.

Using a potent anti Rh₀ immune serum capable of agglutinating 87% of Rh positive red cells, we tested 182 individuals. These were all Filipinos and were made up of the personnel and a few patients of the North General Hospital. We used the test-tube method, and all tests were read macroscopically and microscopically. Of the 182, 177 or 97.3% were Rh positive. Five individuals or 2.7% were Rh negative. This explains the infrequency of intra-group transfusion reactions and the rarity of hemolytic anemia of the fetus and new-born among Filipinos.

However, we do have erythroblastosis in the Islands, as the experience of those who handle obstetrics as a specialty will testify. Moreover, sections from large placentas examined in the laboratory of St. Luke's Hospital show the unmistakable presence of erythroblastosis. This should be borne in mind, and precautions should be taken accordingly in transfusions, specially in those pregnant women whose obstetrical history is suspiciously that of an Rh negative individual.

CONCLUSIONS

1. The incidence of Rh negative individuals among Filipinos has been found to be 2.7%.
2. While the incidence of transfusion reactions and of hemolytic anemia in the fetus and new-born cannot now be ascertained, cases of the latter are on record.
3. The possibility of intra-group transfusion reactions should be kept in mind, especially in the transfusion of pregnant women.

PENICILLIN IN THE TREATMENT OF GONORRHEA AND SYPHILIS¹

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V. D. Control Adviser to Philippine Islands.

For many years, I have regularly attended medical meetings of different types. I have sat through hours of speeches and listened to thousands of words always in the hope that, somewhere in the maze of ideas, I would find something which would be of practical value and which would be of benefit to my patients.

Today, I wish to give you a few practical facts which you can apply in your practice. My subject, as you will note from the program, is "Penicillin in the Treatment of Gonorrhoea and Syphilis." However, with your permission, I would like to supplement this with a few short remarks on the public health aspects of venereal disease. It may never again be possible for me to have the privilege and opportunity of speaking to you on this subject, which is of such vital interest to you and to the community.

As you know, there are five kinds of venereal diseases: syphilis, gonorrhoea, chancroid, lymphopathia venereum (also called "lymphogranuloma venereum"), and granuloma inguinale. Apparently, the last two of these are not very prevalent in the Philippines.

Penicillin, of course, has been tried in all of these conditions. It has been found non-effective in granuloma, inguinale, lymphopathia venereum, and chancroid. Here, it might be noted, however, that many cases of chancroidal infection, when treated with penicillin, actually do respond more rapidly than without it. This is due to the eradication of the secondary invaders and not to its direct action on the Ducrey bacillus. It might be said in passing that chancroid and lymphopathia venereum both respond well to treatment with sulfathiazole or sulfadiazine, while the treatment of choice in granuloma inguinale is the use of Fuadin or Tartar Emetic—both used intravenously.

Not too long ago, gonorrhoea was an obstinate and unsatisfactory disease to treat, especially in women. Then along came the sulfa drugs, particularly sulfathiazole; and all our problems seemed to be solved and our prayers answered. Soon it was apparent, however, that the gonococcus, which had survived for so many centuries in its fight for existence, was not to be so easily overcome. Sulfa-fast strains began to appear more and more frequently, until it finally had to be concluded that, while the sulfas really cured some cases, many patients were simply changed from an active case to a "carrier". This is definitely more dangerous to the community. Today, the treatment of gonorrhoea with sulfathiazole is considered inadequate and outmoded.

¹ Read at the 39th Annual Meeting of the Philippine Medical Association held May 10, 1946, Manila.

While we were feeling sorry for ourselves over sulfa-failures, penicillin appeared on the horizon; and a great change took place in the treatment of gonorrhoea. Many different treatment schemes were tried with varying degrees of success, until finally it was found that from one hundred fifty thousand to two hundred thousand units administered intramuscularly over a 4- to 6-hour period was successful. The army now uses 200,000 units, given in four 50,000-unit doses at 2-hour intervals, thus requiring 6 hours. This length of time is inconvenient in most clinics which operate for periods usually not in excess of four hours. The U. S. Public Health Service has found that 150,000 units administered in 50,000-unit doses at intervals of 2 hours would cure 97% of the cases. This treatment, requiring only four hours, was found much more adaptable to clinic practice and is now used in all Public Health Service Clinics and Rapid Treatment Centers.

However, even a four-hour stay in a clinic or office is inconvenient to most people, so the search went on for shorter methods of treatment. Then it was found that the addition of beeswax in a vehicle of peanut oil would delay absorption of penicillin up from 18 to 24 hours; and the one-injection (commonly called "one-shot") method of treatment was born.

At present a mixture of penicillin-calcium in 4.8% beeswax in peanut oil is used. It is marketed commercially, 300,000 units to a cc, in 1 and 10 cc vial. The usual dose is from 200,000 to 300,000 units, given deep in the muscles of the buttock in a similar manner to that used for bismuth. This one-injection has been found to cure 93% of the cases within a few days. The age, sex, or race of the patient, or stage of the disease seems to make no difference in the results. Those cases not cured by one injection should be re-treated.

I can just hear your minds asking, "What about penicillin failure?" A word of warning is in order here. Do not conclude a case is a penicillin-failure until several things have been thoroughly checked. First, remember that as Pelouze points out, one-third of all urethral discharges in males are non-specific; therefore, check your original diagnosis, to be sure that the patient really had gonorrhoea. Second, what about the probability of a re-infection? We have found many of our patients returning to the original source and re-infecting themselves. Third, there is a type of case which begins as gonorrhoea but is secondarily infected by other organisms. Penicillin kills the gonococcus, but fails to remove the secondary invader; and the discharge continues. Many cases are complicated with trichomonas infections, which are difficult to treat in both the male and the female. If the facts above mentioned are borne in mind, the number of penicillin failures will be found to be relatively few.

In the use of the penicillin-wax mixture, a few technical hints might be helpful. The mixture is solid at room temperature. It must be heated by immersion in water not over 120° F. If over heated, the activity is destroyed. A needle of 18 to 20 gauge is used and both needle and syringe must be *perfectly* dry, as any moisture will cause immediate agglutination and make it impossible to fill the syringe. After a little practice, the technique becomes very simple.

The "one-injection" method of treating gonorrhoea is now used in clinics of the Manila Health Department and will be extended to all provincial clinics as soon as possible.

Dr. Mahoney of the U.S. Public Health Service Venereal Disease Research Hos-

pital in Staten Island has demonstrated that penicillin is also useful in the treatment of syphilis. After numerous treatment programs had been tried, the one finally selected for early syphilis—that is, syphilis of less than four years duration—in the U. S. Public Health Service Rapid Treatment Centers, is a combination of penicillin, mapharsen, and bismuth. The addition of mapharsen apparently makes it unnecessary to use large amounts of penicillin. A total of 1,200,000 units of penicillin is administered in 72 doses at three-hour intervals for 9 days. This means night and day. The individual dose is 16,665 units, and the penicillin is dissolved in either saline or water. Let me strongly emphasize here that in syphilis treatment, penicillin in beeswax and oil is never used. On the first, third, fifth, seventh, and ninth days, mapharsen is administered intravenously, the dose based upon the weight of the patient. One milligram mapharsen is given per kilo of body weight. The maximum dosage, however, never exceeds 60 milligrams. A 0.2 gm. dose of bismuth is given intramuscularly on the first, fifth, and ninth days. The entire treatment, as may be seen, is completed in nine days.

The results with this treatment compare very favorably with the old conventional year-and-a-half treatment. It has been found that there are approximately 15% to 20% relapses. These patients should be re-treated.

A spinal fluid examination is always made before treatment is given. A quantitative Kahn test is also made on the blood. After treatment, the patients are followed at intervals of a month for a year, and a quantitative Kahn test is made on each visit. As long as the titre continues to fall, no further treatment is advised. If, however, the titre increases or stays constant for two successive months, it shows that the patient is in serological relapse and will probably go on to infectious clinical relapse if not re-treated. Re-treating the patient at this time will prevent him from reaching an infectious state.

Now, just a few remarks on the public health aspects of VD Control. First, in order for your health officer to administer a good control program, it is necessary that the private doctors cooperate with him fully in reporting their cases of venereal diseases just as they do the other infectious diseases. Second, it is necessary for each individual physician to ascertain his patient's contacts. All of these should be examined and treated if necessary. Third, in order to prevent congenital syphilis, a blood test should be made on all pre-natal cases. This is now the practice in all of the city pre-natal clinics; and the first report, which I have just received, shows that 7% of these had strongly positive tests while 3½% had tests which must be considered doubtful. It should also be the practice of all private doctors to treat prospective mothers found to be suffering from syphilis. If the disease is in an early stage, the nine-day rapid treatment may be used; if late, use the conventional treatment, the usual weekly injections of alternating courses of bismuth and arsenic (mapharsen is probably the drug of choice) until the patient is delivered. Be sure to start treatment of all old cases with a course of bismuth. In pre-natal cases, it is well to arrange the treatments so that the patient ends on the arsenical course. Fourth, all patients with suspected primary lesions should have a dark-field examination at once. The Rapid Treatment Center will be pleased to do this for any physician not having the facilities to do it himself. The Treatment Center will also be glad to treat patients of any physician who wishes to refer them. Fifth, and finally, let us

not be deceived. There is now, and will continue to be, a great deal of venereal disease in the Philippines. The more we look for it the more we shall find. It will not decrease by itself. Actually, the tendency is toward increase. Get behind your health department. No public health program can succeed without the help of your private doctors.

In conclusion, may I thank you for the opportunity, honor, and privilege of speaking at this splendid meeting. I trust my stay among you will be as helpful to you as it is pleasant to me.

BILATERAL ORCHIECTOMY IN CANCER OF THE PROSTATE¹

LUIS F. TORRES, Jr., M.D. AND PABLO MORALES, M.D.

Department of Surgery, College of Medicine, University of the Philippines

Up to 1941, the only hope for patients suffering from cancer of the prostate was an early diagnosis followed by Young's radical perincal prostatectomy. But the majority of cases are seen by the urologist when the disease has progressed beyond the confines of the prostate, so that its complete extirpation by radical means can no longer be effected. As evidence of this, Hugh Young, in his varied experience during the last 40 years, has seen only 184 early cases of prostatic carcinoma in which radical and complete extirpation was feasible. The majority of patients are seen in an advanced stage, so that only palliative operations, such as transurethral resection, are possible. But while the relief of urinary obstruction can thus be obtained as often as required, the cancerous process proceeds unimpeded up to and beyond the metastatic stage. It is here that the hormonal treatment, initiated and advocated by Charles Huggins, is very valuable in controlling the progress of the disease. Apparently it also influences favorably the obstructive syndrome.

In a scientific exhibit at the Annual Session of the American Medical Association held in New York, June 1940, Huggins beautifully demonstrated that injections of estrogen to dogs with benign prostatic hyperplasia brought about an atrophy of the prostatic epithelium and a decrease in the total bulk of the prostate gland. The first clinical report was made by him in 1941 on a patient with an extensive inoperable malignancy of the prostate. The injection of one milligram of estradiol dipropionate was followed by spectacular and astounding results. Within the first twenty-four hours after injection, dribbling gave way to normal voiding of a good-sized stream at 4-6 hour intervals. Huggins' theory is the following: "Carcinoma of the prostate often is composed of epithelial cells of a mature type, which, in common with all other types of adult prostatic epithelium, is responsive to depression of the level of androgenic hormone in the organism." The androgens in the patient with prostatic carcinoma can be depressed by castration or neutralized by injection of estrogens.

Reports from different clinics agree on the beneficial effects of castration in carcinoma of the prostate. Increased well-being and physical energy, gain in weight, diminution in size of the gland, relief of urinary obstruction and of pain from osseous metastasis—these have all been reported as a result of orchietomy on these unfortunate patients. Radiographic evidence exists of a regression, and even complete disappearance, of bony and pulmonary metastatic lesions after castration.

Clinically the answer to certain pertinent questions affecting the future of these

¹ Read at the 39th Annual Meeting of the Philippine Medical Association, Section on Surgery, May 11, 1946, Manila.

patients must be sought: (1) Will orchietomy prolong the life of cancerous prostatic? (2) How long will the improvement last? (3) Can orchietomy replace resection or prostatectomy? (4) Can it prevent metastasis?

At the Mayo Clinic Thompson found that 26.2% of patients died in the first year and 50.5% in the second year after transurethral resection performed on a total of 326 patients with cancer of the prostate. In a group of 220 patients treated by orchietomy, Emmett found that 23% had died within the first year and only 30.9% by the end of the second year. Bumpus, in 1926, reported 66.6% mortality within 9 months after resection in a series of 1000 patients. On the other hand, Alyea found only 25% mortality within two years after bilateral orchietomy on 110 patients. These figures suggest that there is an actual prolongation of life. (See table I). It is not yet possible to predict with certainty the percentage of patients who will survive beyond the average life expectancy of prostatic carcinoma, which is considered to be 31 months after the diagnosis is made.

TABLE I.—Life Expectancy.

Author:	Deaths After 12th mo.	After 24th mo.	Operation
Thompson (326 patients)	26.2%	50.5%	resection
Emmett (220 patients)	23.0%	30.9%	orchietomy
Alyea (110 patients)	———	25.0%	orchietomy
Bumpus (1000 patients)	66.6% (in 9 mos.)	———	resection

It is well known that obstructive symptoms recur soon after transurethral resection for prostatic carcinoma. Indeed, the patient must often be resected twice or thrice to cope with the progressive growth of the cancer. In his series, Emmett reported that none of his patients who were subjected simultaneously to resection and bilateral castration did not have a recurrence of the obstruction during the first year after operation. Alyea found no recurrence of urinary obstruction during a one- to three-year postoperative period in a group of 58 patients submitted to resection and castration. And all of 13 patients on whom only orchietomy had been done have remained symptom-free. These figures must suggest a definite retardation of the growth.

The relief of pain due to metastasis does not last long. Emmett reports that 60 patients obtained complete and immediate relief of their metastatic pains, but the pain reappeared 4-18 months later in about one-half. Alyea and others have also found that the relief is temporary.

Regarding the value of "prophylactic" orchietomy to prevent metastasis, Nesbit and Cummings report on 32 patients without metastasis at the time of orchietomy. After operation 31% developed metastasis and 12.5% died of the disease. Apparently castration does not prevent the onset of metastasis. Similarly Emmett, on 52 patients without metastasis at the time of castration, reports that 35% developed metastasis and 15% died.

There as yet exists no consensus of opinion on three important questions: (1) when to perform orchietomy; (2) whether to perform orchietomy alone; or (3) in combination with estrogen injections. Some would reserve castration with or without estrogens only as a last resort when prostatectomy or resection fails; others,

like McCarthy, would institute hormonal therapy or castration at the same time as the surgical removal of the prostatic obstruction; and still others would castrate or inject estrogens immediately after diagnosis is made. Only time and fuller statistics will tell. Another problem to solve is to find out which is the best procedure: castration, injection of estrogens, or combination of both.

The following case abstracts are those of patients admitted to the urologic service of the senior author in the Philippine General Hospital, North General Hospital, and St. Luke's Hospital. Castration or bilateral orchiectomy was performed on these patients; no estrogens were administered, for none were available at the time.

CASE 1

B. T., 43 yrs., with hematuria and painful urination for one year before admission to Philippine General Hospital in early 1943, when rectally prostate found stony-hard, slightly enlarged, nodular; and cystoscopically mild urethral obstruction at bladder neck with nodular growths. Transurethral resection gave complete relief of obstruction; biopsy finding was adenocarcinoma, grade 3 (Broders). Came back one year later with recurrence of hematuria, painful urination, prostate enlarged rectally to size of child's fist, though soft. Discharged improved without treatment. After the Liberation of Manila, he sought admission to North General Hospital as bed-ridden patient with dribbling and gross hematuria. Suprapubic cystostomy for drainage of no avail; bilateral orchiectomy followed with rapid recovery of strength, appetite, shrinking of prostate gland, disappearance of bleeding. One month later, total perineal prostatectomy, weight of prostate removed 120 gms., biopsy result adenocarcinoma, grade 3 (Broders). Five months after operation patient vigorous, with normal urination, 40 pounds gain in weight. No metastasis.

CASE 2

C. T., 68 yrs., admitted to North General Hospital in complete retention, frequency and dribbling antedating by one month. Rectally, moderately enlarged, hard, nodular prostate; cystoscopically, lateral lobe intrusions, grade 3 intraurethral. Bilateral orchiectomy produced complete relief of retention, gland becoming softer, smaller within one week. Follow-up, now 7 months, patient urinating freely.

CASE 3

G. M., 57 yrs., admitted to St. Luke's Hospital July 25, 1946, with difficult urination and lumbar pains of 2 yrs. duration. Rectally, small carcinomatous prostate with characteristic stony induration; cystoscopically, lateral lobe intrusions, grade 3 intraurethral, and median bar. Transurethral resection of median bar followed by orchiectomy resulted in unobstructed urination 3 days later. Follow-up: now 8 months post-operative, prostate small, soft, urination free.

CASE 4

M. P., 60 yrs., admitted to Philippine General Hospital Feb. 18, 1946 with frequency, difficult urination, and pain of one year duration. Prostrate nodular, stony hard. Suprapubic prostatectomy on Feb. 25th; biopsy showed adenocarcinoma. March 21st, bilateral orchiectomy. Improvement in urination is attributed to the prostatectomy; a delay in the onset of metastasis is expected from orchiectomy.

CASE 5

V. D., 60 years, admitted April 6, 1946, to Philippine General Hospital in a weak condition with dribbling from overflow; mentality clouded. Rectally, prostate enlarged greatly, stony-hard nodule on left side near apex; cystoscopically, lateral lobe intrusions, grade 3 intraurethral. Metastatic bilaterally enlarged inguinal lymph nodes and a hard mass above symphysis pubis. Bilateral castration performed. Three days later, urination free; rectally, moderate regression of prostate gland, softer. (This case still too recent for follow-up conclusions).

CASE 6

R. S., 60 years, admitted to Philippine General Hospital with enlarged, slightly nodular but not very hard prostate on Nov. 19, 1944. Urinary obstruction relieved completely by perineal prostatectomy; biopsy showed adenocarcinoma, grade 2 (Broders). Came back April, 1946, for bilateral inguinal hernia, for which he was operated on; rectally prostatic capsule found nodular, though no metastasis detected, and urination free. Bilateral orchiectomy done on April 25th. Four days later prostate smaller by one-half former size.

The discovery of hormone therapy of prostatic carcinoma by Huggins in 1941 has given a new ray of hope to sufferers of this malady in the stage of metastasis, but it cannot eclipse the fundamental importance of early diagnosis. For the early case, Young's radical perineal prostatectomy remains unchallenged. For the advanced case, bilateral orchiectomy offers relief from pain and urinary obstruction. The realization that such relief may only be temporary should not be a cause for disillusionment, for the length of life remaining to patients with advanced cancer of the prostate is not measured in years but in months.

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THE JOURNAL
OF THE
Philippine Medical Association

Published monthly by the Philippine Medical Association under the supervision of the Council.
Office of Publication, 547 Herran, Manila, Philippines

Devoted to the progress of Medical Science and to the interests of the
Medical Profession in the Philippines.

VOL. XXII

MAY, 1946

NO. 5

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Association, 1946-1947

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Editorials

THE THIRTY-NINTH ANNUAL MEETING

The thirty-eighth Annual Meeting of the Philippine Medical Association held in April, 1941, will always be memorable. For, a few months afterwards, the tentacles of war reached out across the vast Pacific; and a savage horde overrun our country, subjecting its inhabitants to prosecution and inhuman torture.

To ward off the obnoxious influences of the enemy and the possibility that the medical profession in this country might be used towards ends inimical to the interests of its inhabit-

ants, the Philippine Medical Association suspended all its activities for the duration. But the individual members carried on their work and kept alive the spirit and the ideals of the profession.

The thirty-ninth Annual Meeting could not be held until after the liberation — from May 7 through May 11, 1946. The members of the Philippine Medical Association attended this meeting with the greatest enthusiasm. For it was as though they were ready to pick up the broken pieces of a beautiful vessel and to try to put them together again. This vessel was their votive chalice—the symbol of their dedication to the welfare of humanity.

The members were welcomed by Dr. Jose Y. Fores, President of the Manila Medical Society, the organization which played host to the convention.

Dr. Victorino de Dios, President of the Association, in his address at the opening session, gave a vivid portrayal of the problems that the members of the profession had to solve and the difficulties that they had to surmount during the Japanese occupation—the near impossibility of securing means by which a harrassed and starving people could be served; the unrelenting prosecutions to which physicians suspected of complicity with the underground resistance movement were subjected; and the pitiful meagerness of the supply of essential drugs.

President De Dios truly expressed the sentiment of the members when he said, "We who survived should draw inspiration from the deeds of those (colleagues) who passed away so that the loss of their lives should not be in vain. Let us pray for the souls of those who passed to the Great Beyond. Let us thank the Almighty for saving us from the enemy's brutality. The nation has great need for us physicians in these years of moral and physical reconstruction. Let us rally to our country's call and give her that same service we so generously rendered during the trying days of the war."

The address of the guest of honor, Vice-President-Elect Elpidio Quirino, was well received. He emphasized the dearth of medical service to the poor and the undernourished and the important role the physicians should play in the conservation and rehabilitation of our human resources.

One of the touching and inspiring features of the meeting was the awarding posthumously, for the first time in the history of the Association, of a gold medal and a citation to our foremost researcher, Dr. Candido M. Africa, an innocent victim of

the Japanese atrocities, for his outstanding contributions to medical science.

The House of Delegates tackled many important problems. Among other things, it formulated a program for the rehabilitation of the Association and its component societies, in order that they may resume all their former activities; it adopted a resolution thanking the American Medical Association for its readiness to help in the rehabilitation of the Philippine Medical Association and in the rebuilding of our medical library destroyed during the war; it approved the *Principles of Medical Ethics of the Medical Profession in the Philippines* and authorized the Council to seek the approval of the Secretary of Health and Public Welfare, so that these may be adopted officially by the Board of Medical Examiners; and it congratulated Manuel Acuña Roxas, President-Elect of the Philippines, and expressed its readiness in taking its share of the burden of rehabilitating our devastated country.

The scientific sessions were well attended. It is gratifying that, despite the limited time available in the preparation of this Annual Meeting, many papers on different medical subjects were presented. These papers were timely and instructive; and the discussions, enlightening.

It should be mentioned in passing that, at this meeting also, the scientific session of the Section of Ophthalmology and Otolaryngology, the first to be affiliated with the Philippine Medical Association, was inaugurated.

The entertainments and the visits to various hospitals proved to be both enjoyable and instructive.

The complete proceedings of the Annual Meeting will be printed; and a copy will be sent free, as has been the practice always, to every member of the Association. These records would not only serve as a memento of the Meeting, which was memorable in more ways than one; they should also make clear that it is alone through cooperation, it is alone by pooling efforts and resources, that the medical profession in this country can hope to progress and to extend its field of service to all strata of Philippine society.

All in all, in short, the thirty-ninth Annual Meeting was a fitting climax to the manifold activities of the Philippine Medical Association under the very able leadership of its outgoing President, Dr. Victorino de Dios. With its accomplishments, we can look forward confidently to a period of greater service to the community.—A. S. F.

DR. JANUARIO ESTRADA — OUR NEW PRESIDENT

Dr. Januario Estrada was elected President of the Association without opposition. This fact attests to the high esteem that the members have for him. He served with honor and distinction as President of the Manila Medical Society and of the Colegio Medico-Farmacaceutico de Filipinas from 1941 until 1945; i.e. during the time our people were in the grip of the ruthless enemy. Previous to this, he served twice as Vice-President of the Association. He is, furthermore, a fellow and Vice-President of the Philippine College of Surgeons and a life-member of the Philippine Medical Association.

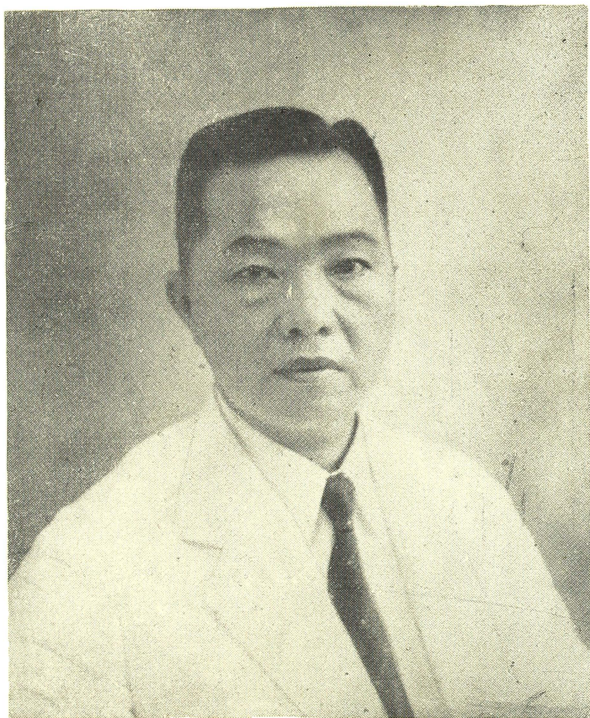
He was born on September 19, 1890 in the City of Zamboanga; attended the Manila High School where he graduated in 1913; and pursued the study of medicine in the College of Medicine and Surgery of the University of the Philippines, where he graduated in 1918. He was immediately admitted to the Philippine General Hospital as intern; then promoted to resident; and, through his industry, conscientiousness and exceptional talent, progressively rose to higher ranks. At present he is associate professor of surgery. Inspired and guided in his surgical training by one of the best surgeons the Philippines has ever produced—Dr. Potenciano Guazon—he is now considered by many as the most skillful surgeon of the country.

In 1934, he toured Europe for post-graduate study in the famous Clinics of Vienna, Paris, and Berlin. In 1935, when President Manuel L. Quezon went to Johns Hopkins to be operated on by the eminent surgeon, Dr. Young, he went along as the President's private physician. And he took advantage of his stay in the United States by visiting some of the well-known surgical clinics.

Dr. Estrada has written several articles on surgery of biliary diseases and rectal malignancies and on appendicitis.

As a teacher, he is very practical — emphasizing by word and example the meticulous care of surgical patients as well as the need for conscientious and thorough study and careful judgment of each case before operation is undertaken.

The Association, in elevating Dr. Estrada to the Presidency, has chosen a fully-qualified man to lead the medical profession of this country.—A.S.F.



JANUARIO ESTRADA, M.D.
President, Philippine Medical Association, 1946-1947

Miscellaneous

ABSTRACTS FROM CURRENT LITERATURE

ABSTRACTORS

Isabelo Concepcion, M. D.

Walfrido de Leon, M. D.

Felisa Nicolas-Fernando, M. D.

Carmelo Reyes, M. D.

Atabrine as a Cause of Fatal Exfoliative Dermatitis and Hepatitis, by Captain Clarence M. Agrees, JI. A.M.A. 131:14, May 4, 1946.

In May 1941 Bispham reported 49,681 cases of atabrine-treated malaria, many of these representing cases in which suppressive therapy was given with long periods of administration. Out of these only 38 with toxic reactions were found, consisting of severe headache, abdominal pain, gastrointestinal disturbances, mental depression, a few psychoses and a questionable case of blackwater fever.

The author made the following summary of his experience:

1. In a large series of Chinese patients receiving atabrine for prophylaxis or treatment for malaria, 5 with severe hepatitis and exfoliative dermatitis were encountered, 3 of whom died of this complication. This represented a very small incidence, about 1 in 2,000 to 3,000 cases.

2. From clinical and pathologic studies it is concluded that atabrine was the causative agent of the hepatitis and the exfoliative dermatitis.

3. The reaction may occur from extreme sensitivity on as little as 0.1 Gm. of the drug or may be a toxic reaction from prolonged and repeated administration.

4. Prompt recognition and treatment of these complications with recognized detoxifying agents like vitamin C and liver extract, intravenous glucose and plasma, combined with withdrawal of the drug, may prove to be life saving procedures, although the mortality in 5 cases was 60 per cent.

5. The 24-hour patch atabrine test giving only 3 per cent false positive reactions with normal skins and 8.3 per cent false positive reactions in patients with existent dermatitis is a useful test for investigation of atabrine sensitivity. [Ordinary atabrine dihydrochloride tablets dissolved in tap water in approximate dilutions of 0.1 Gm. to 10 cc., giving in effect a dilute paste, were found most suitable for patch tests, a small square of gauze being saturated with this solution and taped on the forearm for the period of the test. A control test using one of the sulfonamides, acetylsalicylic acid or phenobarbital was always used on the opposite arm.]—F.N.F.

Promin in Leprosy, Editorial, JI. A.M.A. 129: 1264 (December 29) 1945.

Faget G. H. and Fagge, R. C. at the National Leprosarium in Carville, La., in their article entitled, "The Therapeutic Effect of Promin in Leprosy" (Public Health Report 60: 1165 (Oct. 5) 1945, reported clinical improvement in 137 patients with lepromatous and mixed types of leprosy treated with promin. The drug acts slowly, and improvement usually becomes manifest only after six or more months of treatment. The longer the duration of promin administration and the larger doses of the drug tolerated, the greater is the degree of improvement. Since the organism of leprosy cannot be cultivated on artificial mediums nor the human disease reproduced in laboratory animals, bacteriostatic or bactericidal action of promin is diffi-

cult to prove. However, 62 patients were treated with promin for more than one year, with diminution in the number of *M. leprae* organisms in the lesions in at least 40% per cent. Research may produce a faster acting, more specific, drug for the mycobacterial diseases, but promin is considered the best experimental treatment thus far tested at the National Leprosarium—F.N.F.

Thrombocytopenic Purpura in Pregnancy and in the Newborn, by William B. Patterson, Jl. A.M.A., 130:700, (March) 1946.

The patient who is the subject of this report is known to have had chronic purpura and thrombocytopenia since the age of 4. She became pregnant against medical advice but went through pregnancy normally except for post-partum hemorrhage, which was not too difficult to control. She had a healthy baby except that it has thrombocytopenia.

To recognize and diagnose thrombocytopenic purpura in pregnancy before an acute attack and before delivery, it is necessary according to the author to keep this complication in mind and to suspect it in all patients who have shown any abnormal bleeding tendency either before or during pregnancy. Patients who have had frequent nosebleeds or who bruise easily may have thrombocytopenia. Patients who have close relatives that are "bleeders" should be suspected. Patients who have had post-partum hemorrhage at a previous delivery should be suspected. Although in thrombocytopenic purpura, the bleeding time and the platelet count may at times be normal, the bleeding time is usually prolonged and the platelet count is usually subnormal. The clotting time is normal, but clot retraction is very poor or absent in twenty-four hours. In the acute stage the tourniquet test is positive for petechiae.

The treatment of choice in acute hemorrhage purpura is multiple small transfusions, preferably direct. Transfusions of about 200 cc. of blood should be given as often as is necessary, though at times larger transfusions may have to be given as a life saving procedure. Some patients will continue to bleed after repeated transfusions, and in these splenectomy will usually be followed by an abrupt cessation of bleeding. However, splenectomy should be resorted to only as a life saving procedure and after conservative treatment has failed. Although there is usually an immediate improvement after splenectomy, time has demonstrated that this may be only temporary and that the patient may again develop acute hemorrhagic purpura. Splenectomy seems to be of most benefit for patients who have splenectomy—I.C.

The Oral Manifestations of Iron Deficiency, by W. J. Darby, Jl. A.M.A. 130:830 (March) 1946.

The main purpose of this report, according to the author, is to present evidence that atrophic lingual papillae, glossitis and angular fissures which accompany iron deficiency anemias are often due to the lack of iron alone and not to accompanying B complex deficiencies.

Six cases were presented to illustrate that angular fissures and superficial glossitis may accompany chronic iron deficiency anemia of mild degree. Certain of these cases responded to iron therapy alone; others responded to iron administration after they had failed to yield to prolonged intensive treatment with various B vitamin preparations.

According to the author iron deficiency alone is a common cause of such oral lesions whether or not the lesions are accompanied by the dysphagia of the Plummer-Vinson syndrome.—I. C.

Supradiaphragmatic Section of the Vagus Nerves, by T. F. Thorton, E. M. Storer, and Lester R. Dragstedt, Jl. A.M.A. 130:764, 1946 (March).

This is a report of the studies made on the gastric secretion and motility in a small series of ulcer patients both before and after section of the vagus nerves.

The result obtained in this investigation according to the authors furnish strong support for the view that an excessive continuous secretion of gastric juice occurs in most patients with gastro-duodenal ulcer in the absence of any known type of gastric secretory stimulus. The reduction in this secretion produced by complete division of the vagus nerves to the stomach proves that the hypersecretion is neurogenic in character. It probably represents

an excessive secretory tonus in the vagus nerves of central origin and points to some functional disturbance in the nervous system as ultimately responsible for the disease. The presence of excessive motility of the stomach in many ulcer patients and its return toward the normal state after section of the vagus nerves indicates that a hypertonus of the motor augmentor fibers in the gastric vagi is also often present. Both excessive motility and excessive secretion may of course operate to produce an ulcer in the stomach and maintain its chronicity. Of these two factors, the experimental data definitely indicate that hypersecretion is the more important. The beneficial results obtained by section of the vagus nerves in ulcer patients do not permit a decision on this point, since both secretion and motility are reduced.

The authors further observed that complete section of the vagus nerves to the stomach in man abolishes the secretion of gastric juice produced by a sham meal or by insulin hypoglycemia, but has little or no effect on the response to histamine or caffeine.

The absence of a secretory response to a sham meal or to insulin hypoglycemia is good evidence that section of the vagus nerves to the stomach has been complete.—I. C.

SOCIETY PROCEEDINGS

CITATION¹

CANDIDO MACASAET AFRICA, born in Lipa, Batangas, October 2, 1895; graduate, College of Medicine, University of the Philippines, 1920; graduate, London School of Tropical Medicine and Hygiene, 1929; Professor and Head, Department of Parasitology, Institute of Hygiene, University of the Philippines; Charter Member, National Research Council; killed in Manila by the Japanese, February 12, 1945.

For outstanding contributions to medical science through his discovery of one of the contributory causes of heart failure, hitherto unsuspected; for his remarkable revelation of the intramucosal invasion of certain trematodes in the intestines and the filtration of their ova into distant organs and structures of the body heretofore considered closed to them, thus blazing a new trail and opening up new horizons in research on the strategic proclivities of parasites in general; for his discovery and description of new and hitherto unknown species of trematodes; for his investigations on autoinfestations and autoinfection as applied to parasites; for his fundamental studies on host-parasite relations with special reference to age resistance and acquired immunity; for his successful efforts in awakening greater consciousness to the hazards of parasitic diseases, particularly to the menace of the Oriental blood fluke in this country, making our medical men schistosoma-minded; for his mastery and unquestioned ability as a lecturer and teacher in his chosen field; for his many other investigations in the field of parasitology, borne out by his 66 scientific publications, which have revealed the breadth and depth of his interest and enlarged the frontiers of knowledge in the field—all these have brought him international renown as a leader in his line, winning for the first time recognition of the Filipino scientist abroad and reflecting glory and honor upon his calling and upon his country.

LIST OF SCIENTIFIC CONTRIBUTIONS OF DR. CANDIDO M. AFRICA

(COMPILED BY DR. T. P. PESIGAN)

Dept. of Parasitology, Institute of Hygiene, U. P.

1. Africa, C. M. and C. Monserrat: Certain Developmental Stages of *Ascaris lumbricoides* Ova in the Liver Tissue. *Phil. Jour. Sci.*, 22:459-465, April 1923. (As junior author)
2. Africa, C. M. and M. P. Mendoza-Guazon: Is There *Ascaris* Nephritis? *Jour. Phil. Is. Med. Assn.*, 6:49-54, Feb. 1926.
3. Africa, C. M. and J. Z. Sta. Cruz: *Cysticercus cellulosae* in Man. *Jour. Phil. Is. Med. Assn.*, 7:209-215, June 1927.
4. Africa, C. M.: Observations upon the Experimental Feeding of Various Species of Mosquitoes on Filariated Blood. *Prelim. Report. Jour. Phil. Is. Med. Assn.*, 7:330-336, Sept. 1927.
5. Africa, C. M.: Notes on Malaria and Mosquitoes. *The Bull. of San Juan de Dios Hosp.* 1:47-49, 59, 66, 93-96, 125-126, 137, 1929.

¹ Read at the Opening General Session of the 39th Annual Meeting of the Philippine Medical Association, May 8, 1946, Manila.



anverse



CANDIDO M. AFRICA, M.D.
1895-1945



reverse

Philippine Medical Association

MANILA, PHILIPPINES

To All Who Shall See These Premises, Greetings:

Know ye, that having made outstanding contributions to medical science and research

Candido Alcasae Africa

M.D., UNIVERSITY OF THE PHILIPPINES, 1920
D.T.M. & H., LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE, 1929

the Council of the Philippine Medical Association, in recognition thereof, conferred upon him, posthumously, a gold medal and this diploma.

In testimony whereof are hereunto affixed the signatures of the President and Secretary of the Philippine Medical Association.

Given in Manila, Philippines, this seventh day of May, nineteen hundred and forty six.

Antonio Fernandez
Secretary

Antonio Alcasae
President

6. Africa, C. M. The Hazards of Ascariasis. The Bull. of San Juan de Dios Hosp., 2:36-38, Jan. 1928.
7. Africa, C. M.: On Two German Heterophyidae with Notes on the Variability of Certain Structures. Centralblatt f. Bakteriologie, Parasitenkunde u. Infektionskrankheiten, I. Abteilung Originale, 114:(1-2) 81-86, Sept. 28, 1929 (German summary, p. 86).
8. Africa, C. M.: Pleurogenes loossi, sp. nov. from the Small Intestine of Water Frogs (*Rana esculenta*). Ibid., 115:(7-8) 448-451, Feb. 20, 1930.
9. Africa, C. M.: The Excretory System of *Cercariaeum lintoni* Miller 1926. Jour. Parasitol., 17:14-17, Sept. 1930.
10. Africa, C. M.: Studies on the Activity of the Infective Larvae of the Rat Strongyloid, *Nippostrongylus muris*. Jour. Parasitol., 17:196-206, June 1931.
11. Africa, C. M.: Studies on the Host Relations of *Nippostrongylus muris*, with Special Reference to Age Resistance and Acquired Immunity. Jour. Parasitol., 18:1-13, Sept. 1931.
12. Africa, C. M. and J. T. Lucker: Treatment of Experimental Trichinosis in Rabbits with Neutroflavine. Proc. Soc. Exptal Biol. & Med., 28:432-434, 1931.
13. Africa, C. M.: Studies on Experimental Creeping Eruption in the Philippines. Phil. Jour. Sci., 48:89-101, May, 1932.
14. Africa, C. M.: Elucidation of the Pulmonary Phase of the Life History of *Ascaris lumbricoides* in Man. Nat. & Appl. Sci. Bull., U. P., 2:254-256, Oct. 1932.
15. Africa, C. M.: An Arthropod Associated with a Chronic Dermatitis Involving the Face. Phil. Jour. Sci., 50:205-209, Feb. 1933.
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22. Africa, C. M., E. Y. Garcia and W. de Leon: Intestinal Heterophyidiasis with Cardiac Involvement: A Contribution to the Etiology of Heart Failures. Phil. Jour. Pub. Health, 2:1-22, March-June, 1935.
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UNPUBLISHED WORKS

1. Exo-erythrocytic-parasite-like Bodies in Certain Cases of Human Malaria by C. M. Africa and E. Y. Garcia (Abstract of this paper appears in the Program of the Transaction of the Conference of Medical Sciences held in Manila, Dec. 20-22, 1943).
2. Human Strongyloidiasis: Further Evidence Supporting the Theory of Internal Autoinfection by C. M. Africa and J. O. Nolasco. † (Abstract of this paper appears in the Program of the Transaction of the Conference of Medical Sciences held in Manila, Dec. 20-22, 1943).
3. Experimental Schistosomiasis in Monkeys by C. M. Africa and J. Z. Sta. Cruz. (Reported in a monthly seminar before the Intern Class and Faculty of the College of Medicine, November 25, 1944).