



DiabetesWatch

A publication of the PHILIPPINE DIABETES ASSOCIATION, INC.

VOL. X, NO. 2

December 6, 1993

Intensive Therapy: It Works

It reduces the risk of diabetic eye, kidney, and nerve disease.

By Marie McCarren

The Diabetes Control and Complications Trial (DCCT), which ended in June 1993, was a 10-year study involving more than 1,400 subjects. It proved that tight blood glucose control prevents or delays complications. In fact, the results were so clear-cut that the study was stopped before schedule.

But it's best to let the numbers speak for themselves:

Retinopathy

DCCT researchers chose to study diabetic eye disease (retinopathy) in depth, because the step-by-step progression of this complication is well known and there are accurate ways to track its progression.

They studied two groups of people. People in one group (726 people) had no signs of retinopathy going into the study. In this "primary prevention group," researchers tested whether tight control would prevent or delay the onset of retinopathy. People in the second group (715 people) had mild to moderate retinopathy on entry to the study. In this "secondary intervention group," researchers tested whether tight

control would slow the progression of retinopathy. In each of the two groups, about half the people received conventional therapy and half intensive therapy.

The people on intensive and conventional therapy were similar in age, sex, and number of years with diabetes. But there was one essential difference: blood glucose control. The median glycosylated hemoglobin (HbA1C) level of people in the conventional treatment group was 8.9 percent, while the median HbA1C in the intensive therapy group was 7.2 percent. This difference showed that people receiving intensive therapy did have much better blood glucose control. Glycosylated hemoglobin levels measure blood glucose control over a period of months.

Researchers tracked the onset and progression of retinopathy by taking photographs of the subjects' eyes every six months. In the primary prevention group, the rate of the development of a significant progression of retinopathy was similar for those receiving conventional and intensive therapy for the first three years. But by

year four, a difference between these two treatment groups appeared. This gap continued to widen through the rest of the study. Out of 378 people on conventional treatment, 159 showed a significant progression at some point during the study. In contrast, of the 348 people on intensive therapy, only 73 showed significant progression - a reduction of 60 percent.

When left untreated, retinopathy is known to naturally wax and wane with time. So the researchers also picked a more stringent definition of retinopathy progression. They measured a rate of a sustained, significant progression in retinopathy, that is, a progression that was seen on two consecutive sets of photos of the eyes taken six months apart.

Of the 378 people on conventional treatment, 89 showed a sustained progression. The reduction in risk was calculated to be 76 percent.

The results above showed that retinopathy can be delayed. But a question remained: Will good control slow the progression to eye disease in those who already have it? To study this question,

(Continued on page 2)

Annual Convention Features Management Schemes in Diabetes

Dr. Alan J. Garber, chief of the Diabetes and Metabolism Unit of the Methodist Hospital, Baylor College of Medicine in Houston, Texas, U.S.A. will be the principal guest at the 1993 Annual Convention of the Philippine Diabetes Association on December 7, at the Century Park Sheraton Hotel, Manila.

Dr. Garber will deliver two lectures: The 1993 American Diabetes Association Consensus on the pharmacological management of lipid disorders in diabetes; and insulin sparing antihyperglycemic drugs, potential therapy for syndrome X.

Other speakers are: Dr. Lina Lantion-Ang on the future of insulin therapy; Dr. Rody Sy on the management of hypertension in diabetes; Dr. Oscar Naidas on low dose ACE inhibitor therapy in preclinical diabetic nephropathy; Dr. Roberto Mirasol on the psychosocial aspects of diabetes; Dr. Ma. Honolina S. Gomez on the hyperglycemic syndromes and Dr. Araceli A. Panelo on the perioperative management of the diabetic patient.

Concomitant whole-day sessions for the lay members will be held simultaneously with Dr. Teresa Plata-Que acting as coordinator.

PDA president A.D. Litonjua has designated Dr. Mary Anne Lim-Abraham and Mr. Ed Ocampo as convention chairpersons for the 1993 annual affair.

Intensive... (From page 1)

the researchers divided up the secondary intervention group. They assigned 352 people to conventional treatment and 363 to intensive treatment.

The benefits of tight control were again clear. Only 164 out of 363 people on intensive therapy, as opposed to 208 of the 352 people on conventional treatment, showed significant worsening of retinopathy, a reduction of 34 percent. Moreover, 76 of those on intensive therapy versus 141 of those on conventional therapy showed a sustained, significant progression of retinopathy progression, this was a 54 percent reduction in risk.

Kidney Disease

What does intensive therapy do for the onset or progression of kidney disease? If your kidneys are healthy, you will not have protein in your urine. The excretion of a certain low level of

protein in the urine, called microalbuminuria, is thought to be an early sign that your kidneys aren't functioning perfectly. The DCCT showed that 35 percent of the people on conventional treatment versus 25 percent of those on intensive treatment developed microalbuminuria. This was a reduction of 35 percent.

Kidney disease is present when a lot of protein is being excreted in the urine, called proteinuria. About 10 percent of conventional treatment subjects, but only about 5 percent of intensive treatment subjects developed proteinuria, a reduction in risk of 56 percent.

Nerve Disease

For the 996 subjects who were free of neuropathy when they entered the study, nerve function was measured again after they had been on the study for five years. In the primary prevention group, 10 percent of

those on conventional treatment and 3 percent of those on intensive treatment showed nerve damage. This was a reduction in risk of 70 percent.

In the secondary intervention group, 16 percent of those on conventional therapy and 7 percent of those on intensive therapy showed nerve damage, reduction in risk of 58 percent. With both groups together, intensive therapy reduced the occurrence of nerve disease by 61 percent.

Heart, Blood Vessels, Legs

The DCCT was set up to look at the reduction in risk of so-called microvascular (small blood-vessel) complications. But people with type I diabetes are also known to have a greater risk of macrovascular disease, that is, diseases of the large blood vessels, than people who don't have diabetes. People with type I are at higher risk for diseases of the vessels leading to the heart

and brain, which can lead to heart attacks and strokes, and disease of the blood vessels in the legs, which can lead to amputation.

Not enough heart attacks, strokes, or amputations occurred in either of the two treatment groups for the researchers to conclude that intensive therapy helps reduce those risks. However, they did see a trend that suggested that intensive treatment may reduce the risk of macrovascular disease. The researchers found a statistically significant difference between the two treatment groups for one heart disease risk factor: Intensive therapy reduced the risk of developing a high level of LDL (bad) cholesterol, by 35 percent.

The Down Side

As the DCCT researchers have reported before, intensive therapy does have risks. Weight gain is one. People on intensive

(Continued on page 3)

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Intensive ... (From page 2)

treatment gained an average of approximately 10 pounds more than people on conventional treatment.

Even more worrisome: People on intensive therapy had three times the number of episodes of severe low blood sugar as people on conventional treatment. The researchers defined severe low blood sugar as an episode that required assistance by another person. About 53 percent of these episodes occurred during sleep and 35 percent occurred while the person was awake but had no symptoms.

Certain people were more at risk for severe low blood sugar reaction: those who had a history of such episodes and those with a lower glycosylated hemoglobin during the trial.

Equal Opportunity Treatment

Overall, people in the intensive treatment group got fewer and less severe complications than people in the conventional treatment group. The benefits of tight control were not restricted to anyone group. Intensive treatment worked for men and women, for adult and adolescents, for people who had had diabetes for a relatively short time and for those who had had diabetes longer, and for people with a variety of pre-study blood sugar control levels.

Magic Point?

Hemoglobin A1C (HbA1C) is a form of hemoglobin (the oxygen-carrying molecule of the blood) that reflects the average blood glucose concentration over a three-month period. A high percentage of HbA1C indicates poor control, whereas a low percentage indicates good control.

Is there a magic HbA1C level one must reach to see any, or the most, benefit? Is there a magic point where you will get a lot of benefits with few of the side effects?

The data from the DCCT

By Craig Steinburg

So what is tight control?

"Intensive diabetes management is not just more insulin," says Oscar Crofford, MD, chair

didn't give a direct answer to those questions. The DCCT split the 1,441 people into treatment groups, not HbA1C groups. It wasn't practical, or even possible, for researchers to say, "OK, you people go achieve HbA1Cs of 6 percent. You others get 8 percent, and you others go get 9.5 percent. Then we'll see if there's a difference among the groups in the rate of complications."

Although all the people in the intensive treatment group had the same goal in terms of blood sugar control, very few were able to maintain this level throughout the study. This shows how hard it is to maintain normal blood sugar levels with current strategies. The intensive treatment group did, as a whole, achieve lower HbA1Cs than the conventional treatment group, but values varied.

This variety was actually a lucky break for the researchers, because they were able to look at the association between HbA1C levels and progression of retinopathy. The results: As HbA1C went up, so did retinopathy.

So the good news, for those of you not yet ready to plunge into a commitment to very tight control or who can't do it safely, is that tightening your blood sugar control by any degree will lower your risk of developing complications. A little tighter, a little lower risk. A lot tighter, a lot lower risk.

of the Diabetes Control and Complications Trial (DCCT) and professor of medicine at Vanderbilt Medical School in Nashville, Tenn. "It also means frequent self-monitoring of blood glucose and careful attention to diet and exercise by a highly motivated patient."

Most people with type I diabetes follow what was called "conventional therapy" in the DCCT. With this standard therapy, you take much the same doses of insulin at the same times each day, most likely in the morning and evening. For most

people, standard therapy prevents dangerously high or low blood sugar levels. But, in most cases, these people's blood sugar levels are well above normal.

In contrast, in an intensive therapy routine, insulin doses are used to imitate the way a normal pancreas would supply insulin to the body. You provide yourself with a low level of insulin at all times and extra insulin when you eat. This keeps average blood glucose levels closer to the normal, nondiabetic range.

There are two ways to achieve intensive insulin therapy: through multiple daily injections

From: *Diabetes Forecast*
DCCT: What it means to you

(Continued on page 4)

GLIPIZIDE MINIDIAB

MINIDIAB pharmacokinetics are more advantageous than those of other sulfonylureas

Drugs	Time (hr) to peak effect	Half-life, T _{1/2} (hr)	Duration of action (hr)	Metabolites	Overall excretion
Chlorpropamide	8-10	30-60	22-65	4 (active)	100% in 10-14 days
Glibenclamide	2-5	10-16	16-24	6 (partially active)	59% in 1 day 95% in 5 days
Gliclazide	2-6	10-12	4-24	8 (inactive)	98% by renal route in 48 hr
Glipizide	1.0-2.5	2-4	6-24	4 (inactive)	97% in 1 day 100% in 3 days

• "Glipizide evoked a more pronounced and more rapid increase of plasma insulin and correspondingly greater and faster blood glucose reduction than did glibenclamide."

• Thus, likelihood of hypoglycemia is minimized "As glipizide (Minidiab) is rapidly eliminated, and as there is no evidence that its metabolites are significantly active, the risk of long-lasting hypoglycemia should be small when using glipizide. In contrast, glibenclamide has provoked serious, and even fatal hypoglycemia in several cases; it is possible that this risk is increased in patients with renal insufficiency due to accumulation of an active polar metabolite. A similar risk is well recognized in the case of chlorpropamide."

From Diabetes Forecast - DCCT: What it means to you

Is Intensive Therapy for Everyone?

By Craig Steinburg

Is intensive therapy - in particular, intensive insulin therapy - safe for everyone?

Children

In young children, intensive insulin therapy is risky. Children already have a higher risk of low blood sugar than adults, and intensive insulin therapy may make that risk even bigger. Low blood sugar may hurt normal brain development, which lasts until age 7. The American Diabetes Association says that tight control should not be tried in children under the age of 2. For children between 2 and 7, the ADA says to try tight control only with great care.

Some doctors say that it's far safer to wait to begin an intensified program until the child reaches the age of 13. At that age, a child's brain and ability to monitor blood sugars and to adjust behaviors and diet are much more like those of an adult.

Elderly

Intensive insulin therapy in older people has not been well studied and should be used only with great care. Older people with hardening of the arteries risk permanent injury from low blood sugar. These people may suffer heart attacks or strokes during episodes of low blood sugar.

Intensive insulin therapy may

not even be worthwhile in a person over 70. Complications take years to develop. If an older person has no sign of complications, tight control may sometimes not be worth the effort. But if the person is mentally fit and comes from a family with a history of living to a ripe old age, intensive therapy may be a good idea.

Pregnant Women

Keeping blood glucose under tight control is essential in pregnant women. It can lower the risk of birth defects.

People With Complications

The ADA says that people with marked vision loss or end-stage renal disease should probably not go on tight control. It's very unlikely that tight control will undo the damage caused by severe complications.

People who have a history of severe low blood sugar reaction should take extra care to avoid such reactions. They also should not try strict blood sugar control methods.

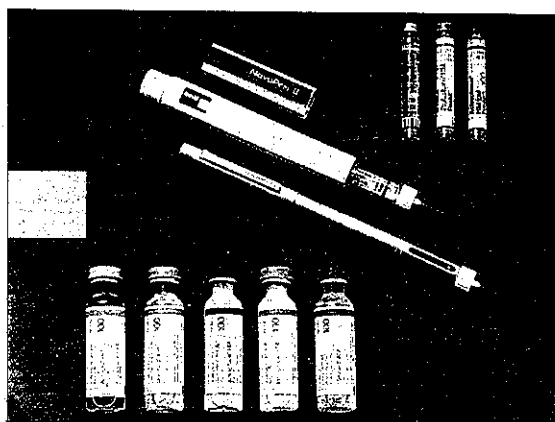
So what ... (From page 3) or with an insulin pump.

Multiple daily injections usually mean four or more insulin shots a day. For example, an intensive insulin therapy routine might include one shot before each meal and one before going to bed. Many people inject an intermediate- or long-acting insulin at bedtime and short-acting or Regular insulin before each meal.

If you do not want to inject yourself four times a day, you have another choice: an insulin pump. A pump is a mechanical syringe that puts out a constant programmed insulin dose. It's about the size of a beeper and can be hooked to a belt loop or put in a shirt pocket. The insulin is delivered through a plastic tube. This tube is attached to a needle or catheter that is most often inserted in a person's abdomen and taped in place.

The pump provides a steady (Continued on page 5)

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So what ... (From page 4)

drip of Regular insulin (called the basal infusion) day and night. Also, you program the pump to put out a burst of extra insulin (called a bolus infusion) when you need it, such as before meal.

You have to be dedicated to keep a pump in working order. You have to change the batteries regularly to keep your pump working. You have to change the needles daily. The catheter tubing can get blocked, so you need to change it regularly, usually every other day.

It takes time to learn how to use a pump. You should take a course from your health-care team.

The Real Test

The essence of intensive insulin therapy, whether you take multiple injections or use a pump, is testing your blood sugar levels often. With standard therapy, you take about the same amount of insulin every day at the same time. But with intensive therapy, you change your insulin dose to fit with the result of your blood sugar tests, how much you plan to eat, and what activities you plan to do.

At the very least, you'll need to test before each shot, or bolus infusion from the pump, to figure out how many units of insulin you need. That means you'll be testing before each meal and at bedtime. If you aren't willing to test this often, then intensive insulin therapy isn't for you. Many people also test two to three hours after meals to find out whether they took enough insulin or, perhaps, too much. You'll also have to make good use of each test and learn how to see patterns in your test results.



Mark Your Calendars!
15th IDF Congress
Kobe, Japan
November 6-11, 1994

If you have NIDDM, is the DCCT for you? ...

The DCCT's message is clear: Lower your blood sugar by any amount, and you will lower your risk of developing complications. Thus, if you have non-insulin dependent diabetes (NIDDM) or type II diabetes, the following are recommended by the American Diabetes Association:

Talk to your doctor and other health-care team members to find out what the DCCT results mean for you, personally.

Remember, all diabetes is serious. "Mild diabetes" or "a touch of sugar" still carries the risk of serious complications.

There's a lot you can do if you have type II! Exercise more. Focus on healthy eating. If you are managing your diabetes by exercise and diet alone, or if you are taking oral diabetes medications, you might benefit from testing your blood sugar level yourself. Ask your doctor what's right for you.

If your doctor says you need to take insulin to get in better control, this can be a positive step toward feeling better. You and your health-care team should determine your "target"—that is, where you want your blood sugar level to be in the morning and after meals. Ask your doctor about how often and when you should test your blood sugar level. Keep records of your test results and learn how what you're doing affects the management of your diabetes.

If diet, exercise, oral agents and conventional insulin therapy don't get your blood sugar levels down where you want them to be, you may want to try intensive insulin therapy. But ask your doctor. Not all people with type II diabetes are good candidates for intensive insulin therapy.

From *Diabetic Forecast - DCCT: What it means to you*



Complications

Why the fuss over complications? Here's what's at stake.

Diabetes blinds 15,000 to 39,000 people each year. The major cause is the damage done by diabetes to the small blood vessels of the retina, called diabetic retinopathy.

Nonproliferative (background) retinopathy is a common and often mild form. In most cases, it does not interfere with vision and does not require treatment.

Proliferative retinopathy is the more serious form. It can cause blindness. About 25 percent of people with type I diabetes and 10 percent of people with type II diabetes have the proliferative form of eye disease 15 years after they are diagnosed with diabetes.

Kidney disease, or nephropathy, is a big cause of illness and early death in people with diabetes. Between 10 to 40 percent of the deaths of people with diabetes are caused by kidney disease. Thirty-four percent of people with type I and 19 percent of people with type II have diabetic kidney disease after 15 years of diabetes.

Another troubling complication is diabetic neuropathy, or damage to the nerves. Peripheral neuropathy is the most common form. The legs and feet are most often affected, although the hands may be, also. Autonomic neuropathy affects the autonomic nerves, such as those in the bladder, intestinal tract, and genital organs.

About 8 percent of all people who are diagnosed with diabetes already have nerve disease. The autonomic form of nerve disease occurs in 20 to 40 percent of people with diabetes. It may result in death from heart attack or kidney failure. Impotence is a common result of autonomic neuropathy, affecting 35 to 75 percent of men with diabetes.

NOVO NORDISK DIABETES AWARDEE

The recipient of the first Novo Nordisk Diabetes Award will be announced during the annual convention of the Philippine Diabetes Association on December 7, 1993 at the Century Park Sheraton Hotel. The award is a joint undertaking of the Philippine Diabetes Association, Philippine Society of Endocrinology and Metabolism, Philippine Society of Pediatric Metabolism and Endocrinology and Novo Nordisk A/S.

The Novo Nordisk Diabetes Award is given to a young phy-

sician in recognition of his/her outstanding contribution in the field of diabetes education, research and community service.

The awardee will receive P100,000.00 in cash, P10,000.00 worth of medical textbooks/medical journals and a plaque of recognition.

The members of the Board of Judges for the first Novo Nordisk Award were:

Dr. Ludivina Garces-Holst - Chairperson

Dr. Augusto D. Litonjua, Dr. Federico Cruz, and Mr. Eddie Y. Ang - Members

President Fidel V. Ramos declared the fourth week of July every year as Diabetes Awareness Week to highlight the concerns about the epidemic proportions of diabetes mellitus in the country and elsewhere in the world. The Filipino population was made aware of the disease and its different complications and ways to prevent it.

Shown in the following pages are some of the activities of the chapters of PDA in joining the celebration of Diabetes Awareness Week. The chapters of Cagayan de Oro City and Capiz were not able to record their activities, although they, too, took part in the Week.

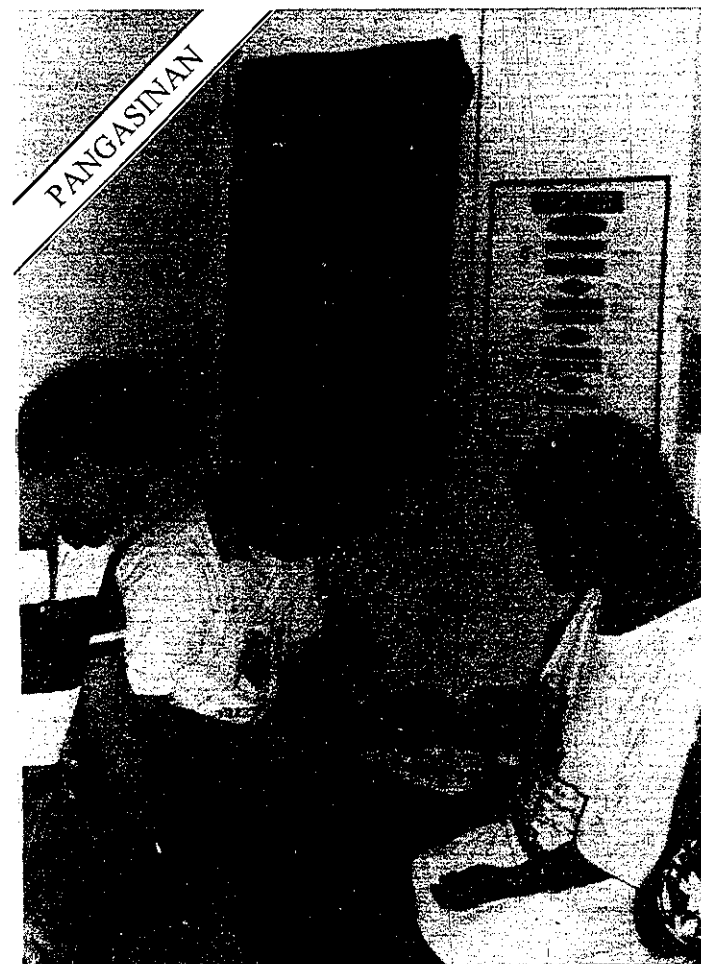
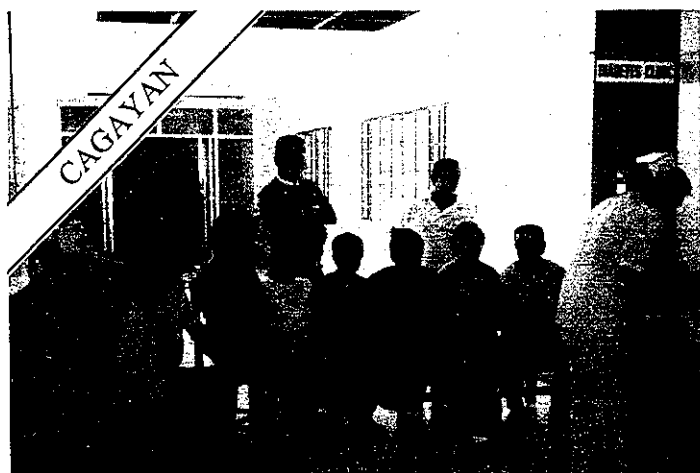
The Metro Manila group was divided into four teams that fanned out to different hospitals and schools to give lectures and demonstrations on the disease. Television shows and radio interviews also formed part of the activities. The departments of Health and Education also lent their cooperation to the observance.

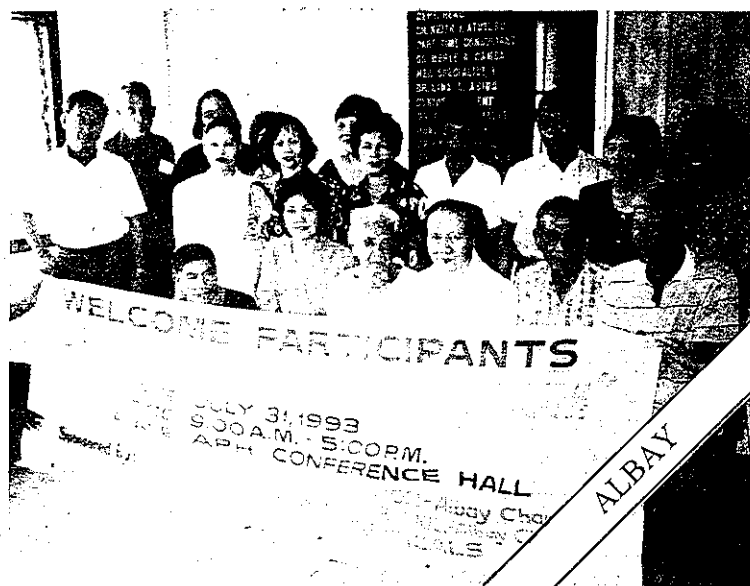
Activities by the chapters included free blood sugar testings, lectures on the nature of diabetes and talks on diabetes care, radio interviews, and on the part of the Cebu chapter, a colorful parade ushered in the Week.



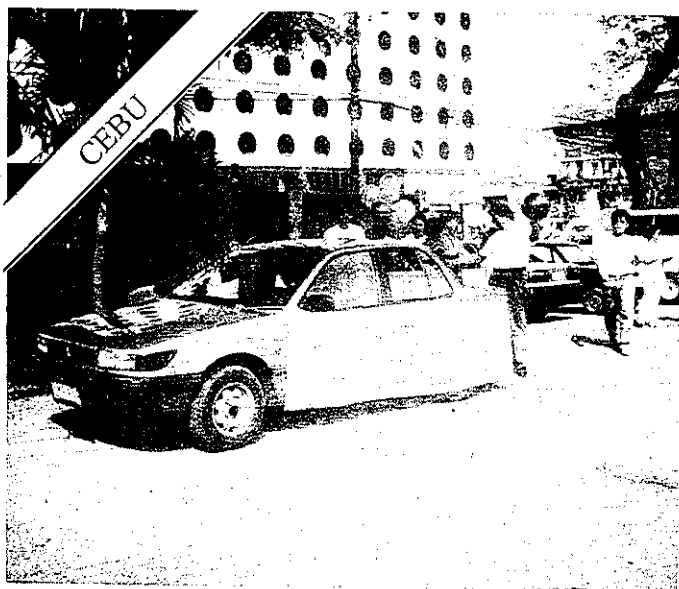
Pres. Ramos declaring observance of Diabetes Awareness Week at Maharlika Hall, Malacañang Palace.

DIABETES AWARENESS WEEK

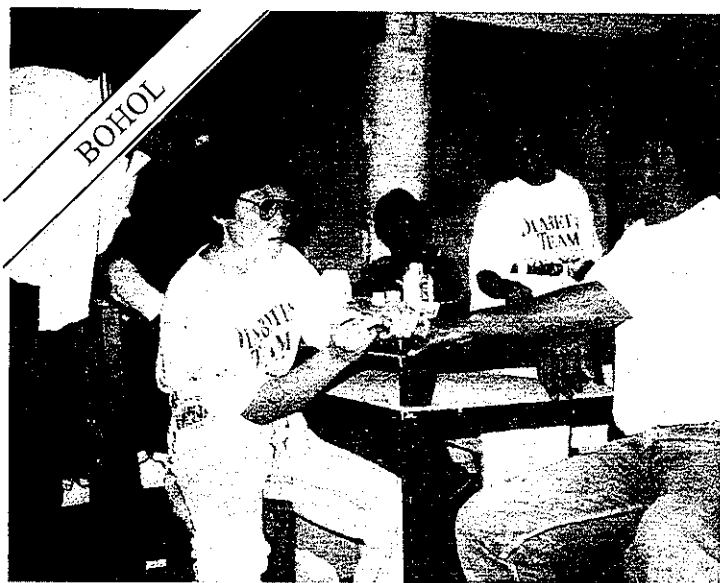




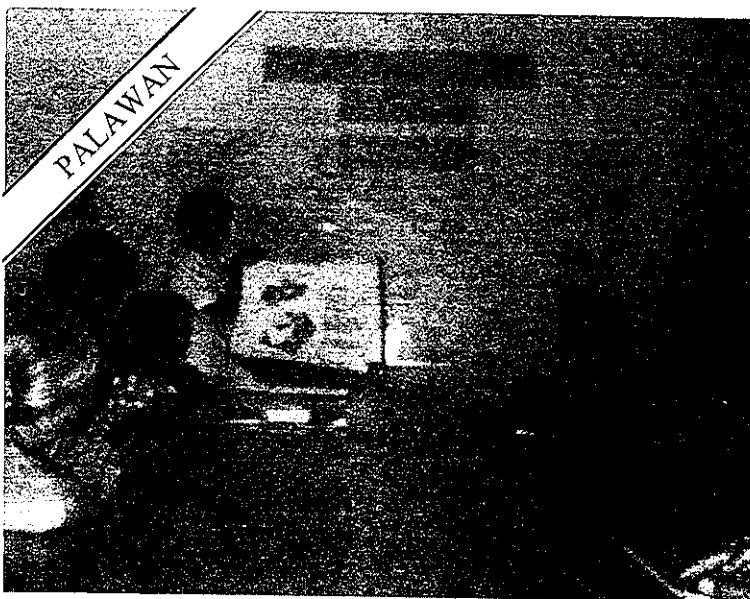
CAMARINES SUR/NORTE



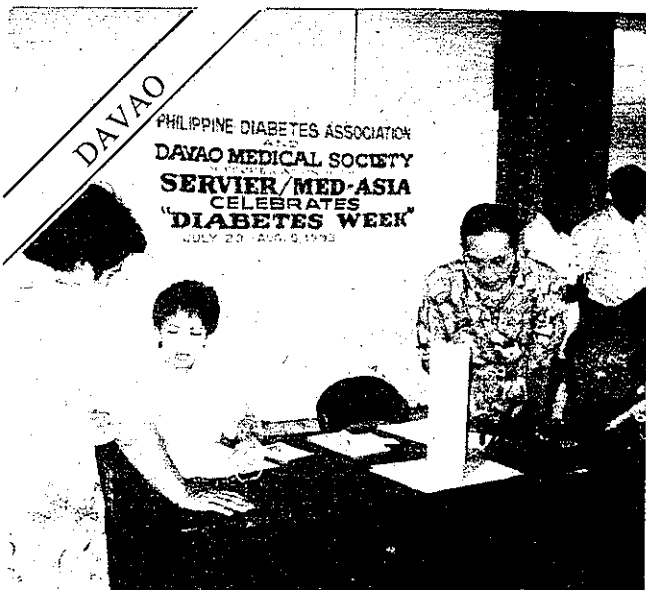
BOHOL



PALAWAN



DAVAO



Feeling Christmas? YES!!! For Filipinos, Christmas isn't Christmas without the traditional "noche buena" with the family. A diabetic need not miss the fun for this once a year feast, for there are food recipes out there to choose from. And that's the purpose of this contest: to discover the best recipes for a complete meal for Christmas, making use of our local ingredients to come up with an imaginative, colourful and nutritious recipe at the same time containing a balanced proportion of carbohydrates, proteins, fats and vitamins.

The contest is open to individuals/groups who are culinary enthusiasts and have knowledge of the basic principles in meal planning for diabetics.

Each recipe must:

a. consist of a complete Christmas meal (a balanced combination of food items from the Basic Food Groups' Diabetic

MA. HONOLINA S. GOMEZ, MD
MA. CHITA CELESTE ANGELES, RND
Diabetes Educational Clinic
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The Search is on !

MAKE A HOLIDAY MEAL FOR DIABETIC PATIENTS FOR CHRISTMAS, 1994

Exchange List, creatively put into a single meal) for diabetics

b. be kitchen-tested and unpublished

c. be typewritten and should include the following:

- name of recipe(s)
- list and measure of ingredients in their order of use
- instructions for preparation
- cost per serving
- size/measure of a serving portion

d. have a yield of 4 servings
The following shall be used

as criteria for judging:

- a. Nutritional adequacy and conformance to a diabetic meal plan30 %
- b. palatability (flavor, blend and texture)25 %
- c. originality (uniqueness of recipe)15 %
- d. presentation (color, appearance, table setting).....15 %
- e. ease of preparation and economy (use of indigenous foods)15 %
- TOTAL 100 %**

All entries must be stamped and sent to:

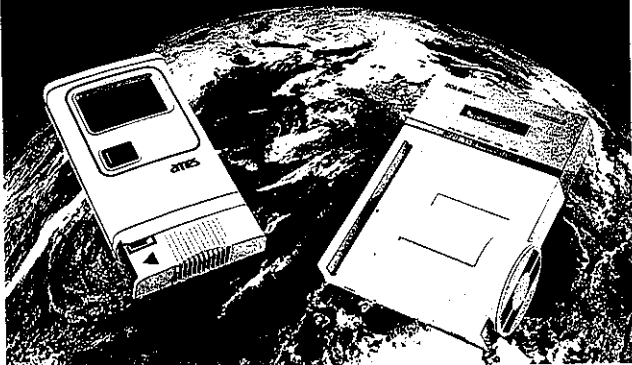
National Headquarters
Philippine Diabetes Association
Unit 25, Facilities Centre,
540 Shaw Blvd. Mandaluyong,
Metro Manila on or before
October 1, 1994. Pre-judging
will be on November 15, 1994.
Only 15 entries shall be chosen
from among the applicants. Participation of chosen entries will be confirmed by letter/telegram. Winning recipes shall be the property of the Philippine Diabetes Association and shall be exhibited during the 1994 PDA Annual Convention. Sampling of recipes shall be allowed while supply lasts.

CONTEST PROPER:

1. Contestants will provide the following:
 - ingredients for cooking
 - serving equipment and props for table setting
2. We will provide the following through our major sponsor:

(Continued on page 9)

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DIABETES CENTER CERTIFIES SECOND GROUP OF DIABETES EDUCATORS

The Second Training Course for Diabetes Educators was held October 25 to 30, 1993 at the Makati Medical Center by the Diabetes Center. The six day intensive course had six teams, the members of which received certificates as Assistant Diabetes Educators. The participants were:

CAPIZ and ROXAS CITY: Villarosa, Victoria, M.D., Mrs. Balasa, Rosemarie, R.N., Mrs. Ponsaran, Narcisa, R.N.

CAGAYAN de ORO: Galupo, Wilhelmuna, M.D., Mrs. Salon, Flores, Marie Louise, R.N. Mrs. Santos, Elvira, R.N.D.

RIZAL MEDICAL CENTER: Joseph Anthony Castro, M.D., Mrs. Flores, Marie Louise, R.N. Mrs. Santos, Elvira, R.N.D.

FEU-NRMF: Madrigal, Trinidad, M.D., Mrs. Legarda, Mercedes, R.N., Mrs. Macanola, Beverly, R.N.D.

VETERANS MEMORIAL MEDICAL CENTER: Villarosa, Balazar Jr., M.D., Mrs. Makalintal, Nora, R.N., Mrs. Angeles, Chita Celeste, R.N.D.

PALABANCO PRINCESA, PALAW: Watanabe, Rivera, Alma, M.D., Mrs. Tabang, Ma Soccoro, R.N., Mrs. Bontogon, Belinda, M.D.

FEU-NRMF: Madrigal, Trinidad, M.D., Mrs. Legarda, Mercedes, R.N., Mrs. Macanola, Beverly, R.N.D.

RIZAL MEDICAL CENTER: Joseph Anthony Castro, M.D., Mrs. Flores, Marie Louise, R.N. Mrs. Santos, Elvira, R.N.D.

(Continued on page 11)

DIABETES MELLITUS 2000: From Genes to Beans

Second Seminar Lecture

Prof. Ronald A. Arky, Master of the Francis and Wendy Peabody Academic Society of the Harvard Medical College and member of the Board of Trustees of the Joslin Diabetes Center has been chosen to deliver this year's Seminar Lecture on Diabetes Mellitus. His talk will cover the important developments in etiology of diabetes to its management. The Lecture will be held at the Century Park Sheraton Hotel on the evening of December 6, 1993. The Lecture is a joint undertaking of the Diabetes Center, Philippine Diabetes Association and Les Laboratoires Servier.

The First Lecturer was Prof. John Turtle of Australia.

The search ... (from page 8)

- contest venue
- preparation/presentation tables
- cooking utensils and equipment.

3. Actual preparation/cooking will be done in front of the judges. - total preparation/cooking time and tables setting should not exceed 2 1/2 hours.

- pre-preparation of ingredients is allowed before the contest. i.e. chopping, measuring, etc. - centerpiece and finished products for desserts requiring long chilling/setting may be brought in.

4. Judges decision will be final. 5. Awarding of prizes will be done during the 1994 PDA Annual Convention.

Prizes at stake:

1st prize: P 10,000.00
2nd prize 7,500.00
3rd prize 5,000.00

Consolation prizes of P 1,000.00 each for the seven entries which were not chosen.

Cavite Chapter Formed

The Cavite chapter of the PDA was formally organized on 7 November 1993 at the Taal Vista Lodge in Tagaytay City. The officers were inducted into office by President A.D. Litonjua after a MedAsia sponsored roundtable meeting on the therapy of hypertension in diabetes mellitus.

The officers of the chapter are: Dr. Erdulfo Tandoc, president; Dr. Ruben Vista, vice president; Dr. Mario Aseron, secretary; Dr. Expedito Modesto, treasurer; Dr. Salvador Samala, auditor. The Board of Directors is composed of Dr. Romeo Arriego, chairman and the following as members: Dr. Felix Sapioso, Dr. Rene Cosca, Dr. Alberto Puga, Dr. Allan Hernandez and Dr. Mariliza Calma.

The 7th Diabetes Workshop was held in Lucena City, September 3-5, 1993. The Chapters of Quezon, Albay and Laguna jointly sponsored the workshop which drew 58 registrants: - 38 from Quezon province, 14 from Laguna, 5 from Albay and 1 from Marinduque. However, only 45 registrants were given certificates for full attendance. Coordinators for the 7th workshop were: Dr. Fe Villanueva, Dr. Mona Lisa Cosme and Dr. Lina Asido from the chapters; and Dr. Lina Litonjua and Dr. Honolina S. Gomez from the national headquarters. Lecturers were: Dr. Teresa Plata-Que, Dr. Mary Anne Lim-Abraham, Dr. Lina Lantion-Ang, Dr. Honolina S. Gomez, Dr. Ruby Go and Dr. A.D. Litonjua. Those who received their certificates for full attendance are listed:

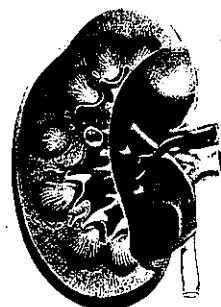
Alidio, Noel
Alfio, Renato
Arana, Victorino
Asido, Lina
Azarcon, Reynalda
Balubayan, Carmencita
Barrameda, Catalina
Briones, Esther
Bayana, Miriam
Cabaal, Gloria
Caballes, Venus Marie
Cabrega, Cora
Cailing, Imelda
Cedre, Recaredo
Ciabal, Raul
Cortes, Jean
Cosme, Mona Lisa
Custodio, Jorge
de Gala, Alberto
Fallier, Petronillo
Galero, Eric
Gregorio, Lino
Habitio, Victor

Jader, Marleta
Janairo, Jiji
Jara, Nilo
Landicho, Pedro
Liwig, Jason
Marcelo, Dalisay
Mercado-Toledo, Amelita
Nantes, Wyndelina
Nosce, Maribel
Obispo, Augusto
Obispo, Avelino
Pagkatipunuan, Nestor
Ramos, Rizalina
Reyes, Violeta
Revilla, Heidi
Ricafort-Liwag, Mary Anne
Rivera, Cynthia
Rondilla, Judy
Sia, Cesar
Tabernilla, Joy
Tusi, Carol
Villarosa, Wilma

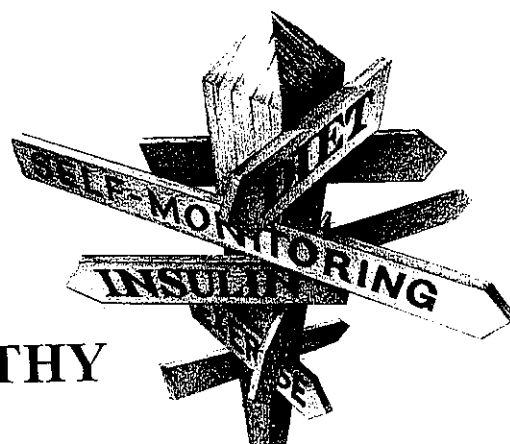
Certified Participants

7th Diabetes Workshop Draws 58 Registrants Venue: Lucena City

MA. HONOLINA S. GOMEZ, M.D.
Diabetes Educational Clinic
Veterans Memorial Medical Center



RECOGNIZING DIABETIC NEPHROPATHY



Case Study: Marisol B. is a 48 year old lady with a 14 year history of high blood sugar. Sometime in the past, she went into diabetic coma (diabetic ketoacidosis), and was admitted to the hospital several times for uncontrolled high blood sugars and non-healing wound of the right foot. Five years ago, she underwent laser treatment for the eye complications of her diabetes, and since then has been on a 1500 calorie diet plus twice daily injections of human insulin.

In the recent past, instead of uncontrolled high blood sugars, she began to experience several episodes of low blood sugar, requiring a gradual decrease in her daily insulin requirements. On her last visit, she appeared pale with swelling of both her legs, without symptoms suggestive of heart disease. Her blood pressure was high at 160/90 lying down, a pulse rate of 90 beats/minute. In addition to the swelling of the lower extremities which extended to the thighs, she had no pulses in her lower legs.

The fasting blood sugar was high at 13.4 mmols/L, as was the glycosylated hemoglobin (9%). She was anemic, and the tests suggested poorly functioning kidneys (high BUN and creatinine). Another kidney test - the creatinine clearance - showed a value of 25 cc/minute

(roughly equivalent to only 25% of the function of the kidneys remaining). She was indeed anemic, with a hemoglobin of 8.5 gm% (normal = 12-14 gm%), and the serum albumin was only 28 gm/L (normal = 40-60 gm/L). She had a lot of protein in the urine.

Comments: Diabetic nephropathy (affection of the kidneys) is one of the most serious complications of diabetes. The appearance of proteins in the urine (proteinuria) augurs bad for the patient. This complication of diabetes occurs in 25% of patients with the insulin dependent type, and in 10% of patients with non-insulin dependent type. Usually, the persistent proteinuria takes about 10-20 years to develop from the time of diagnosis of the diabetes. Aside from the proteins in the urine, patients also manifest a high blood pressure, and a decreasing creatinine clearance. Marisol manifests all these.

The persistent proteinuria is the late stage of a continuing process which starts when diabetes begins, and the BUN (blood urea nitrogen) and creatinine also increase in the blood. These are all the effects of the high sugar in the blood on the kidneys, disrupting its anatomy and function.

The leg swelling is due to the inadequate replacement of albumin in the blood, which is being

continually lost through the urine. The albumin holds the fluid of the blood in the blood vessels, and its lowering causes the plasma (the watery portion of the blood) to leak out into the surrounding spaces. Medically, Marisol is in the nephrotic stage of her kidney disease, an irreversible progression of the condition.

The metabolism of insulin changes in kidney disease - it is less degraded in the body, it cannot be eliminated as in the normal way through the kidneys - thus, patients are rendered more sensitive to the effects of insulin - hence, the now frequent attacks of hypoglycemia or low blood sugar, - an ironic ending to the high blood sugar that caused her present state.

The high blood pressure is the result of blood vessel changes that result from the diabetic state, as well as, from the edema (leg swelling). A hormone, aldosterone, is stimulated, and causes the further retention of fluids in the body, as well as, salts (sodium). Diabetics with hypertension are at an accelerated risk from stroke, heart disease, failure of heart function (congestive heart failure), peripheral vascular disease which contributes to the non-healing of wounds in the legs, retinopathy (eye changes which eventually lead to blindness if not corrected) and further loss of kid-

ney function.

The therapy for Marisol should include a developed team approach with frequent monitoring of her status. This will need aggressive control of the high blood pressure, which includes a sufficient dose of diuretics and dietary limitation of salt (sodium) intake. The usual prescription is a diet which contain only 4 grams of sodium, plus a 40 gram protein intake.

Aggressive management of Marisol's kidney disease and high blood pressure is critical. The retina should be examined by an experienced eye doctor (ophthalmologist) every 3 months to ensure that timely laser therapy is initiated to prevent macular edema and retinal detachment. An important signal indicating the limit of conservative management is persistent hypertension that is poorly responsive to maximal doses of diuretics and other antihypertensive drugs.

Once the nephrotic range of proteinuria develops, there is no turning back. For the newly diagnosed IDDM and NIDDM patients, the results of the DCCT which are reported in this issue of DiabetesWatch, confirm what we have always been teaching our patients - optimum control of the diabetes can delay the onset of diabetes-related complications in the eyes, kidneys and nerves.

Planned for Kobe

Plans are under way to hold Twinning Workshops for IDF Member Associations at the 15th IDF Congress in Kobe, Japan in November 1994. Prof. H.M.J. Kras of The Netherlands, Chairman of the IDF European Region, is chairing the IDF Committee on Twinning Workshops. The Twinning Workshops will be a first-ever event at an IDF Congress. Representatives from all IDF Member Associations and others from around the world will be invited to attend. Participants will learn about the rewarding experiences some IDF Member Associations have had by "twinning," or working closely with another country help to build its diabetes program. Following introductory presentations, working groups will be arranged to discuss special topics, including:

- Building association membership
- Building associations in developing countries
- How to raise public awareness of diabetes
- The association as a lobbying institution
- The association and the national health/diabetes plan

The Twinning Workshops will mark the debut of the *IDF Guidelines for Development of Member Associations*. A special IDF Task Force, chaired by IDF Vice President Mrs. Maria L. de Alva of Mexico, has produced a comprehensive guidebook designed to help strengthen IDF Member Associations. The *guidelines* also offer valuable advice on how to start an association in countries where none exist.

The IDF Twinning Workshops will offer all Member organizations.

IDF to Produce 1994 Directory

The IDF is producing a new, revamped edition of the *IDF Directory - A Guide to the Activities of Member Diabetes Associations*, thanks to the kind support of Becon Dickinson Consumer Products. Becon Dickinson also sponsored the 1988 and 1991 editions of the *IDF Directory*.

The *IDF Directory 1994* will be updated and expanded to include new Member Associations, now numbering 14 from 96 countries. The questionnaire has been redesigned to give Member Associations the opportunity to tell more about their on going activities and challenges. Additionally, the IDF Triennial Report 1991-94, a report from the outgoing President on the overall state of the IDF, will be incorporated into the *Directory*. This new edition promises to be the most complete and accurate guide to the world wide diabetes care ever assembled into one document. The directory will be distributed to all attendees of the 5th IDF Congress in Kobe Japan in November, 1994, and will be available to others from the Executive Office. This important document has been presented to Ministers of Health, the World Health Organization and other national and international organizations.

Laughing Through Diabetes

"We were just getting used to the routine of blood tests and I often called out to my 11 year old reminding her to test. She got angry one day and yelled back 'What do you from me. BLOOD?'"

This little story is part of a letter sent to the IDF office recently from Canadian, Deborah Jaremk, whose daughter has recently been diagnosed with juvenile diabetes. They have decided to compile a book of humorous anecdotes about diabetes that everyone can buy and enjoy. Proceeds will go to diabetes research. Anecdotes should be supplied, (anonymously if preferred), to: Deborah Jaremk, 521-18 A St. NW, Calgary, CANADA, T2N2H3.

Diabetes Costs More Than Triple, Says New Report

A second major story to come out of the ADA meeting in June was the results from a new report on the total cost of diabetes in the USA. This said that costs have risen by 350% in the last five years to make a staggering total of US\$91.8 billion. This contrasts with 1987 figures which put the cost at US\$20.4 billion.

It seems that previous estimates did not include the costs of care associated with chronic diabetic complications and the costs of treatment of other related illnesses. They also did not include the increased use of health care services needed by those with diabetes - particularly for heart problems. In 1992 nearly 60% of hospitalizations for chronic diabetic complications were for the treatment of cardiovascular disease. In addition, a diabetic patient with pneumonia, for example, nearly always stays in hospital longer than a non-diabetic patient. On average those with diabetes stay in hospital 2.8 times longer than do their non-diabetic counterparts. Last year diabetic patients spent 17.5 million working days in US hospitals due to diabetes, at a cost of just over US\$39 billion.

This little story is part of a letter sent to the IDF office recently from Canadian, Deborah Jaremk, whose daughter has recently been diagnosed with juvenile diabetes. They have decided to compile a book of humorous anecdotes about diabetes that everyone can buy and enjoy. Proceeds will go to diabetes research. Anecdotes should be supplied, (anonymously if preferred), to: Deborah Jaremk, 521-18 A St. NW, Calgary, CANADA, T2N2H3.

Diabetes Center...

(From page 9)

The faculty was composed of Ms. Susan Trinidad, Ms. Emily Cardino, Dr. Mary Ann Lim-Abraham, Dr. Lina Lantion-Ang, Dr. Tommy Ty-Willing, Dr. Susan Yu-Gan, Dr. Ma Honolina S. Gomez, Dr. Ruby Go, and Dr. A. D. Litonjua. Two courses are held every year, and each course is limited to six teams. A team is composed of a physician, a nurse, and a dietician. Today, 12 teams have been trained, including one from Indonesia.

News and Events: International Diabetes Federation (IDF)

Western Pacific Region Congress Shows "explosive increase" in Diabetes Prevalence

The IDF-WPR Congress, held in Seoul on April 12 and 13 1993 was considered to be an unqualified success. Prominent diabetologist Prof. P Zimmet, called the congress "unparalleled as a scientific event and Prof KGMM Alberti commented that "every moment I spent in Seoul was interesting and worthwhile". Two important issues were discussed at the meeting. Firstly the

explosive increase of diabetes prevalence in the region and secondly a special type of NIDDM common only to Asia.

Dr. Y Park reported a Korean population study which showed the prevalence of diabetes was 8% in both men and women and that 10.6% of subjects had IGT. There were 1.7 newly diagnosed people with diabetes for each known case and the majority of them were symptom free. Neighbouring Asian populations in Japan and Taiwan showed similar prevalence levels. In addition prevalence is rising in the Chinese populations of Singapore and Mauritius. If similar rises happen in the vast population of mainland China once westernization begins to take place, this could have a huge impact on the prevalence of dia-

betes in the WP region.

The special type of Asian NIDDM was discussed at length. It was evident that 2 out of 3 NIDDM patients were not obese, even though they had other typical symptoms. In addition hyperinsulinemia and insulin resistance did not seem to play a crucial role in the development of NIDDM in Korean and Japanese patients. It was suggested that Asians have smaller capacity to secrete insulin than those in the West. This could mean that even with a minor increase of body weight and subsequent development of insulin resistance, the B cell cannot secrete enough extra insulin to compensate and so diabetes emerges. It was proposed that such theories be checked on as part of a multinational study.



Mark Your Calendars!
15th IDF Congress
Kobe, Japan
November 6-11, 1994

For more information and registration:
Prof. Shigeki Baba, Chairman
15th IDF Congress Organizing Committee
Kobe Convention Center
6-9-1 Minatojima-nakamachi
Chuo-ku, Kobe 650
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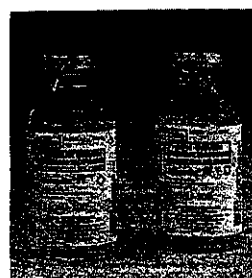
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