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Editorial: Minimal access surgery

Dr. Ajay R Munshi Prof, of Surgery K.M.SCHOOL OF RG. Medicine & Research

Ever since the dawn of civilization, advances in technology and advances in surgery have been inseparably linked. Ancients surgeon was linked with surgery of deformity & disease. Later came problems of pain, shock and infection. The turn of nineteenth century was associated with advances in Anaesthesia, asepsis and antisepsis, and blood transfusions. The art & craft of surgery developed very fast : Valvotomy of heart valves, valve replacement, coronary artery grafting, transplantation of heart and later implantation of artificial heart has prolonged the lives which would have been otherwise ended!

Now, we are in the midst of a surgical revolution based on imag¬ing technique advances, Fibre optics & microchip cameras. These have led us inspiring, magnified images of the contents of the abdominal & thoracic cavities and the inside of many of the vis¬cera. These developments combined with the production of small instruments and miniaturized stapling machines, have allowed the development of minimal Access and endoscopic surgery. In 1988, 'evidence based' approach to newer techniques, with the assessment of effectiveness and cost effectiveness of existing and new technologies are introduced. It requires strict discipline on part of a surgeon presented with an exciting new technology to use that technology only within the context of a trial of a strict audit of outcome and complications. At a time when new tech¬nologies are appearing over the horizon at an increasing rate, it is important for surgeons to evaluate not only the effectiveness, but also the cost effectiveness and influence on human life. It's over privilege to live in a time when advances in the science can be adapted for use in medical science. It should planned that the introduction of new technologies to be monitored ihor-ough professional bodies & it's the medical professional re¬sponsibility to see the he is adequately trained, developments in simulation : use of animal tissues plastic materials and even in laboratory environment is achieved. Later the trainee surgeon to work under supervision on human being to be allowed to prac¬tice independently.

Now minimal access surgery have grown rapidly crossing all barriers in different specialities and it's a gold standard proce¬dure in many techniques.

HIV INFECTION & MEDICAL PROFESIONALS

Dr. Janardan V. Bhatt M.D.,M.D.,Ph.D.

The medical profesionals are, though low but at definite risk of HIV infection. The estimated risk is 0.37%. Factors affecting the HIV transmission during the contamination of blood or other body fluids are the volume of inoculum, quantity of virus, depth of penetration, immunological & genetic factor of host,.If such accidents or needle stick injury occur in clinical set up, where the HIV status of the patient is unknown or the patient is of high risk of HIV virus, the situation should be managed according to the guidelines of WHO. The wound or injury site should be cleaned with soap & water. Antiseptics like 70% ethanol or povo iodine are ideal. The person should be encouraged to undergo HIV test¬ing or atleast to have a serum sample preserved in bank at earliest

possible to see the base line HIV status. Subsequent HIV testing is required after 2-6 months of exposure. It will take six months to rule out HIV infection completely. If acute symptoms of viremia develop, PCR or other viral antigen test may be necessary. Proper pre and post HIV test counselling is essential. During these six month period, the person/doctor should behave in such a way to reduce the transmission of HIV to his/her sex partner (safer sex practice -WHO guidelines), the children. The role of AZT (zudovidine)is found to be apparently protective by animal study. The drug should be started within 24 hour, in the dose of 250 mg. QID for 2-6 weeks under supervision of trained physician.

There is risk of transmission of HIV from doctor to patient (Reversed Risk). The estimated risk is 0.4 %. The risk is more with certain procedure like surgery, venepuncture, venesection, blood bank. It is suggested that person should avoid any proce¬dure in which there is spillage of blood inside their patient.

PREVENTIVE MEASURES-WHO gives the guidelines for the prevention of HIV transmission in clinical setup. Frequent hand wash with soap & antiseptics like ethanol 70 % or povo iodine is mandatory. The gloves should be used in drawing the blood sample or venepuncture or any clinical procedure. This re¬duce the contamination of blood & other body fluids, but does not prevent penetrating injury. PENETRATING INJURY BY NEEDLE, SCALPEL. POSE GREAT RISK OF HIV TRANS¬MISSION. ALL PRECAUTIONS MUST BE TAKEN TO PREVENT THE INJURY FROM NEEDLE, SCALPEL ETC. Cracked and torn glover should be discarded.

INSTRUMENTS can transmit HIV virus. They must be ster¬ilized by autoclave, dry heat (oven - 17CT for 2 hours). If not available boiling water for 20 minutes is simple and reliable method.

CHEMICALS-Chemicals can be used to sterilize instru¬ments. WHO recommends (1) Glutaraldehyde 2 % or (2.) Hydro¬gen peroxide 6 %. Instruments should be immersed atleast for 30 minutes. Alcohol & spirit is not ideal to sterilize the instruments. One should check the concentration of chemicals periodically. Ideally one should see the guidelines provided by the manufac¬turer of the instruments.

CLEANING OF TABLE TOP / FLOOR AND WARD -Any spillage of blood or body fluids on the table or floor should be cleaned with chlorine releasing compounds (1) Sodium Hy-pochlorite fresh or (2) Fresh Liquid Bleach solution. The area should be exposed to the chemicals for ten minutes to clean the table tops, laboratory and wards. Alcohol and spirit are not suit¬able and ideal for HIV disinfection, sodium dichloroisocyanurate granules can safely be used instead of chlorine releasing com¬pounds.

DISPOSAL OF WASTE - Disposal of sharp cutting instru¬ments like needles and scalpels should be disposed in specially prepared disposable equipment by WHO. If it is not available they should be put in puncture registrant container for disposal. Liq¬uid waste like blood and the body fluids, secretions, suction flu¬ids should be poured and

drained to an adequately treated sewer system or disposed in pit latrine. Solid waste like peds, dressing, laboratory waste, diapers are to be treated as infectious and dis¬posed by incineration, burning, autoclaving. Solid clothes and utensils that have been contaminated with contact of HIV posi¬tive person should be boiled in detergent and soaked in disinfec¬tants for 30 minutes. To prevent the contamination of blood and body fluids during clinical procedure WHO recommends proper use of gloves, water proof fabric gowns, protective hand wear, water proof apron, plastic or overboot calf length footwear and protective eye - face mask. Lastly any spillage of blood or other bodv fluids should immediatelv be decontaminated bv disinfectants like chlorine bleach or hydrogen peroxide.

Reference-WHO Pulication on HIV Prevention

GUEST ARTICLE

HUMAN CLONING : AT THE DAWN OF 21ST CENTURY

Dr. Narendra Malhotra, Dr. Jaideep Malhotra

What Prof. lan Wilmut (Scottish embryologist) of Roslin In¬stitute near edinburgh, has done in creating Dolly was that he made a differentiated cell of the skin of the ewe go back totipo-tent cell by applying certain electric voltages and he put back "this" into an empty follicle and implanted "this" embryo with chromosomes only from one parent into a surrogate sheep and after the normal gestational period delivered a cloned sheep-Dolly. History was created with scientific possibilities running as far as your and our imagination can think. Think of duplicate you or tripled or actually 9, think of human photostats, think of human spare parts, think of organ factories, whatever, and let your imagi¬nation run wild.

The big break through was not by Hargovind Khurana or Crick & Watson who described the DNA & genes to us ; it was in 1996 that scientist have managed to map human genes in the project of HUMAN GENOME and now we know that which chromosome carries genes for which of your body particulars and for which disease, You want your children with blue eyes we can do it, you want your children with tails-yes tails, like mouse or Hanumanji; we can do it; you want Designer babies, disease free babies, a human race of super brains or super brawns : yes we can do it -but are we proud of this achievement or scared, we are not yet sure. Do we want to play GOD? Do we want to do what we are doing ? We don't know, neither are we sure of what we are doing. After Dolly has come : Polly the sheep with genes from human on the chromosome which produces milk so we now have a sheep which will produce human milk ; there will be no shortage of human milk, mothers you can preserve your 36" figure because all you have to do is give your chromosome and we (scientists), will produce a sheep for you which you can tie in your back yard and milk time will be sheep time for your infants.

Scientists who have focused their cloning efforts on more for¬giving embryonic tissue have met with greater success. A simple approach, called embryo twinning (literally splitting embryos in half), is commonly practiced in the cattle industry. Coaxing

sur¬rogate cells to accept foreign DNA is a bit tricker. In 1952 re¬searchers in Pennsylvania successfully cloned a live frog from an embryoid cell. Three decades later, researchers were learning to do the same with such mammals as sheep and calves. "What's new," observes University of Wisconsin animal scientist Niel Forst, "is not cloning mammals. It's cloning mammals from crews that are not embryoid."

Embryo cells are infinitely easier to work with because they are, in the jargon of cell biologists, largely say"undifferentiated." That is, they have not yet undergone the progressive changes that turn cells into skin, muscles, hair, brain and so on. An undiffer-entiated cell can give rise to all the other cells in the body, say scientists, because it is capable of activating any gene on any chromosome. But as development progresses, differentiation al¬ters the way DNA-the double-stranded molecule that makes up genes-folds up inside the nucleus of a cell. Along with other struc¬tural changes, folding helps make vast stretches of DNA inacces¬sible, ensuring that genes in adult cells do not turn on the wrong time or in the wrong tissue.

...... a line has been crossed, and reproductive biology will
now never be the same for people or for sheep. This exotic form of reproduction could be an extremely useful tool if used properly, there is no doubt about the exciting possibilities it opens up in the field of Agriculture, Champion cows, top wool producing sheep etc. square tomatoes & potatoes so we can pack them better and easier in square cartons & boxes, the misuse of this technology goes to resurrecting the dead and possibilities of virgin births and women giving birth to their own twins. Men are not required, but we still need the women.

Science is not stopping here and if you have read chromosome -6 by Robin Cook you are going to be frightened by the possibili¬ties of using animals as your spare parts. Animals lovers wake up and protest as the human civilization is not ready to die of heart failure, liver failure & kidney failures and we are going to use genetically tinkered apes, monkeys, chimps, baboon's or even pigs for this is possible because science has managed to locate the genes responsible for organ rejection and science has further man¬aged to translocate these genes from arms of chromosome-6 and reimplant them in animal embryos to give you "spare parts ani¬mal" a "stepney" you can use when your original tyre (heart, liver, kidney, eyes etc.) gets punctured. The only risk is that we will or may be creating cave men again & human civilization can be seen as they evolved. You might see your very own ancestor ape with your genes 100 million ago in 2000 AD-Scary isn't it?

Science is not resting & in 1997 the Japanese have come out with artificial womb's and a step further was achieved by scien¬tists in Oct.' 97 as producing headless embryo's. So in case you had some ethical feelings of killing your clone for spare kidneys kidneys or even killing your genetically engineered ape for a spare liver, science has today answered your prayer and has, or is plan¬ning to produce headless clones so you have no hesitation in sac¬rificing this headless 'anencephalic' monster clone of yours for using as your spare part supplier.

Like most scientists who score major break through, Wilmut and his colleagues have raised more questions than they have answered. Among the most pressing are questions about Dolly's health. She is ten months old and appears to be perfectly fine, but no one knows if she will develop problems later on. For one thing, it is possible that Dolly may not live as long as other sheep. After all .observes NCI's stewart, "she came from a six-year-old cell. Will she exhibit signs of aging prematurely ?" In addition, as the high rate of spontaneous abortion suggests, cloning some¬times damages DN A. As a results, Dolly could develop any num¬bers diseases that could shorten her life. After Dolly came polly with genetically engineered DNA so she produces human milk, Now there is going to be no shortage of human milk as she will do this for us.

21 Jan, 1998 George and Charley the first cloned calves born in a Texas city ranch and this may be the future of pharmaceutical industry. This genetically engineered calves will be able to pro¬duce medicine for us human's in their milk. Unfortunately George and Charley are males the real threat to the pharma industry will be when cows (females) will be born . Cow milk will now act as Human Albumin(Human Blood).

Nobody at Roslin or PPL talking about cloning humans. Even if they were, their procedure is obviously not practical-not as long as dozens of surrogates need to be impregnated for each success¬ful birth. And that is probably a good thing, because it gives public time to digest the news-and policy makers time to find ways to prevent abuses without blocking scientific progress. If the policy makers succeed, and if their guidelines with international acceptance, it may take a lot longer than the editorial writers and talk-show hosts think before a human clone emerges even from the shadows of some offshore renegade lab. "How long?" Asks PPL's James. "Hopefully, an eternity."

Mr. Seed has created new waves of very high frequency & has once again brought out the controversy of human cloning Rich¬ard Seed who is a physics doctor from Harvard University USA and has worked in biology has stated that he wishes to produce 500 human clones a year and according to him this will eventually extend human life and enhance civilization. So what if USA
bans this & 90% of Americans are against the idea of cloning there are others-labs, around the world-Yes Mr. Seed there are-but have you given it a second thought...? We are going to have a baby boutique "create a child for a price" or are we going to see a situation of "which one of us is me?" And the question the likes of Mr. Seed are unleashed in our beautiful world of normal humans.

Where you want science to stop or how far will we go, the ball is in your court; come on public give an answer & let us stop at only IVF-ET as a part of infertility treatment or may be some genetic engineering to conquer diabetes, Alzihmer's or degenerative dis-eases-or do you want a clone- a spare part for yourself. Society has to decide how far to allow science to go because science shall pursue its quest and what can be done will be done....
MALHOTRA TEST TUBE BABY CENTRE 84, M.G. Road, AGRA

Dr. Narendra & Dr. Jaideep Malhotra are M.D. Ob. Gyn.
Thanks to Dr. Mahesh Gupta, Dr. Manish Banker, Dr. Atul Munshi for permitting to publish this article in the journal

ORIGINAL PAPERS & ARTICLES
MEDICAL MANAGEMENT OF UNRUPTURED ECTOPIC PREGNANCY

DR.ATUL MUNSHI HON. PROFESSOR OF OB/GYN KMSCHOOL OF RG.MEDICINE & RESEARCH

Ectopic Pregnancy occurs in about 1.5 to 2% of total pregnancies. Inspite of early diagnosis it remains the major cause of maternal mortality in 1st trimester.
As a changing scenario We See more users of Medical Manage¬ment in recent days practice specially for unruptured Ectopic Preg¬nancy and special cases like Cervical pregnancy, cornual preg¬nancy and persistent Ectopic.Pregnancy (PEP). At times it is bet¬ter and safer than surgery.
By medical treatment we mean systematically administer cyto-toxic agent. It can also be administered surgically (SAM), into or around Ectopic sac by Endoscope, or through ultrasonography or radiological guidance. Let us see principle of Medical Treatment.
SELECTION CRITERIA (MEDICAL)

1. B - HCG < 5000 mlU/ml.
2. Unruptured tP (Serosa Intact
3. Gestational Sac <3.5 cm in size (Stoval 95).
4. No fetal heart motion in gestational sac
5. Increased Titre/Plateau after conservative treatment like salp-ingostomy
6. Peritoneal fluid < 100 ml.
7. Hemodynamically Stable and reliable.

AGENTS USED
(1) METHOTREXATE (4) KC1
(2) Hyperosmolar Glucose (5) Prostaglandins
(3) RU - 486

MECHANISM OF ACTION OF METHOTREXATE
-FA Antagonist
-Interference with DNA synthesis.
-Prevents proliferation of trophoblast
-Trophoblast is absorbable by autozymes.

REGIMENS
Methotrexate • single Dose Protocol
100 mg/m* IV Stat

200 mg/ml hours later
Citrovarum Factor - 50 mg - 12 hourly
Mean period -4-S days,
Initial Increase for 3 days followed by decrease by 7 days If de=
creased less than 15% on day?, repeat treatment,
Oral: 0,3 mg /Kg .4 days,
HCQ litre - 7days
If no decline repeat treatment or contemplate surgery. MULTIPLE DOSE REGIMEN
I/M METHOTREXATE Img/kg/day-day 1,3,5,7 Citrovorum Factor 0.1 mg/kg/day - day 2,4,6,8 15% decline in 2 consecutive B- HCG litre
- Weekly B-HCG till negative
- RPT B- HCG increases/plateau
Follow up - B-HCG - Weekly for 2-3 times till less than 10 mlU/mi.

SIDE EFFECTS OF METHOTREXATE
(1) Neutropenia (5) B.M.Suppression
(2) Pneumonitis with ARDS (6) Colicky Pain
(3) Enteritis (7) Stomatitis
(4) Altered LFT (8) Gastritis
- During management Avoid alcohol, coitus, folic acid. RU- 486 - 400 - 800 MG/DAY WITHIN 10 DAYS OF MENS. SURGICALLY ADMINISTERED MEDICAL AGENTS : SALPINGOCENTESIS
Inj.
-Methotrexate 12.5mg
-KCL 2-4 c.c. 20%
-Hyperosmolar-Glucose
-PG -PGF2 Alfa O.5-1.5 mg.
-15-M-PGF2Alfa 75 mg.
-Anti - HCG Antibodies
Through - TVS guided transcervical tubal cannula or laparoscope.
MECHANISH OF ACTION
-Exactly not known but probably.
-Distortion of Gestation Sac.
-Absorption of Drugs into trophoblast leading to destruction. COMPLICATIONS
-Cardiac arrhythmia
-Hypertension
-Pulmonary Oedema
-Success Rate -8
In follow up study using mithotrexate it is observed that post treat¬ment hysterosalpingography showed 82,3%, Patency on same side and about 80% of them conceived,
Patient on Methotrexate require a watchful monitoring on Blood count, liver function test and HCG level, as rupture of tube can oeeur even with falling HCQ.
Reduced cost, minimal hespltallzsatlon, early resumption of nor¬mal activity, Out patient treatment and almost 90% success in selected ease, are some of the important advantages of Medical treatment.

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A COMBINATION OF REGIONAL ANAESTHESIA TECHNIQUES IN VASCULAR SURGERY

**DR. I.C.DAVE, DR. B. SHAH, DR. R. THOSANI, DR.VISHAKHA BEN BHATT, DR. D. G. YAGNIK,
DR. U. SHAH, DR. V. AGRAWAL, DR. M. PATEL - Dep. of Anaesthesia -CT & Vascular surgery VS. General Hospital**

For lower extremity revascularization, venous grafts are usually taken from the lower limb veins like saphenous vein. Sometime upper limb veins like cephalic vein or basilic vein are used as venous grafts.

The patients posted for this kind of surgery are mostly elderly with multisystem disorders. Hence, they show very high perioperative mortality and morbidity rates. After clinical examination and appropriate investigations, 18 pa¬tients were graded as ASA (American Society of Anaesthetists) risk grade II to IV, suggesting co-existing moderate to severe sys¬temic diseases. Optimum medical management for these diseases was continued in the perioperative period. Informed consent was taken.

Continuous lumbar epidural anaesthesia with 1 % lignocaine with adrenaline was given. Sedatives and analgesics were supplemented. Sometimes it became necessary to harvest venous grafts from up¬per limb. For this, anaesthesia was provided with axillary brachial plexus block using 1 % lignocaine with adrenaline. By com¬bining two anaesthesia techniques, we were able to maintain ad¬equate anaesthesia in all but one patient who required addition of general anaesthesia.
The regional anaesthesia provided excellent perioperative anaes¬thesia and postoperative analgesia. This helped in effective block¬age of perioperative stress response.

Prevention of postoperative hypercoagubility and improved graft blood flow by regional anaesthesia helped in better surgical out¬come.

Careful patient selection and explanation as well as skill of an¬aesthetist led to high success rate of regional anaesthesia. Con¬tinuous patient monitoring and'management of problems in time helped in decreasing perioperative complications. The goals of maximum surgical benefit with minimum patient morbidity were achieved cost effectively in our setup.

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ROLE OF ADENOSINE IN MANAGEMENT OF ACUTE LONE (IDIOPATHIC) SUPRA VENTRICULAR TACHYCARDIA

DR. SHRENIK SHAH, DR.HETAN SHAH DR. SUNIEL B. DALAL, DR. BHAVIN DALAI DR. ANAND SHUKLA, DR. BHAVESH THAKKAR THE DEPARTMENT OF CARDIOLOGY AND CARDIOVAS¬CULAR LABORATORIES V.S. GENERAL HOSPITAL AND K.M.SCHOOL OF POST GRADUATE MEDICINE AND RESEARCH

INTRODUCTION:
- S.V.T can be life threatening if associated with hemodynamic instability:
- Preva lence : 2.25 / 1000
- Incidance : 35 / 100000
- LONE SVT occur in younger (mean age : 37 YEARS) AIMS AND OBJECTIVES OF STUDY: to study the
- efficacy
- average dosage requirement
- tolerability and safety
- onset of action
- cost effectiveness
OF I/V ADENOSINE, DILTIAZEM AND VERAPAMIL
IN ACUTE LONE SVT

EXCLUSION CRITERIA OF ADENOSINE
- Asthma.
- Theophyline therapy
- Orthotopic cardiac transplanstion

EXCLUSION CRITERIA OF VERAPAMIL/DILTIAZEM
- Hypotension/shock
- congestive cardiac failure
- Previous therapy with beta-blocker.
- Sick sinus syndrome
- 2nd AND 3rd Degree A V Block.

MATERIAL AND METHODS
* TOTAL 36 PATIENTS.
* AGE: 18-45 YEARS
* GROUP:

A: Adenosine : 12 Patients.
B: Verapamil :12 Patients.
C: Diltiazem : 12 patients.
Inclusion Criteria
Patients with lone (idiopathic) SVT
ALL PATIENTS MONITOR
(1) HEART RATE.
(2) BLOOD PRESSURE.
(3) CARDIAC RHYTHM.

DOSE REQUIRE	AVERAGE	MAXIMUM
A Group	9 Mg	12Mg
B Group	10 Mg	15 Mg
C Group	15 Mg	25 Mg

SIDE EFFECTS	AGroup	BGroup	CGroup
Hypotension	0	3	2
CCF ;	0	1	0
Bradycardia	1	1	1
APC/VP	0/1	1/0	1/1
Flushing,Chest-Discomfort	4	0	0
Bronchospasm	1	0	0

ADENOSINE RESPONSE

Dosase	No. of Pt.	Responce%
3Mg	4	33.32%
6Mg	8	66%
9Mg	10	83%
12Mg	11	91%

RESULT OF TREATMENT

DRUGS	TOTAL NO.	RESPONSE	%
ADENOSINE	12	11	91.66
VERAPAMIL	12	10	83.33
DILTIAZEM	12	10	83.33

CONCLUSIONAdenosine:
Advantage : ISafe and Effective 2.First Drug of Choice 3.Rapid and short Duration of Action 4.Hypotension. 5.CCF 6Beta-Blockers therapy

Dis. Advantage :
1 Costly
2 Theophylline Therapy
3 Asthma COPD

ROLE OF HYPNOTHERAPY (SELF - HYPNOSIS) FOR THE PREVENTION OF CORONARY ARTERY DISEASE IN SPECIAL RELATION WITH TOBACCO SMOKING.

DR. JANARDAN V. BHATT M.D. (Medicine), M.D. (Physiology),Ph.D. (Behavioural Physiology)

Introduction :-
During Fremingham study, it was concluded that coronary artery atherosclerotic disease is multifactorial disease where the large no. Of risk factor play significant role in the development of coro¬nary artery disease. These risk factors are classified as

Out of, all these risk factors, following three are considered as major risk factor for CAD.
(1) Tobacco Smoking
(2) Hypertension
(3) Hypercholesteremia

All these 3 major risk factor are modifiable by mere-
1-Health Education
2-Behaviour Therapy
3-Hypnotherapy

Out of all these risk factors tobacco smoking is not only the major risk factor of CAD, but it is responsible for -
(1)Premature development of C A D
(2)Young myocardial infaction
(3)Sudden Cardiac arrest and death

Table - 2

Content of tobacco smoke responsible for atherosclerosis (Atherogeons) and C A D.

(1) Nicotine
(2) Carbon monoxide
(3) Arile Hydrocarbons
(4) Hydrogen Cyanide
(5) Hydrogen Oxides
(6) Antigenic glycoproteins
(7) Free radicals

Tobacco smoking is modifiable risk factor by recently developed methods i.e. Hypnotherapy i.e. self hypnosis and behavioral therapy. And modifying suchf behaviours and C. A. D. risk fac¬tors, C. A. D. can be substantially decreased and leads to primary prevention of Coronary Artery Disease.

Material and Method

Stop smoking campaign and Coronary Artery Disease primary prevention program were arranged in various parts of Ahmedabad with king collaboration of

(1) N M Institute of Health Education
(2) DR. Jivraj Mehta Health Foundation
(3) Dep. of Psychosomatic Medicine and Hypnosis of V S Hospi¬tal, Ahmedabad. with following objectives
(1) Health Checkup
(2) Psychoanalysis
(3) C. A. D. risk prediction
(4) Behaviour modification by self Hypnosis
(5) Health Education

Selection of Cases

Fifty consecutive tobacco smokers who attended stop smoking campaign programme and showing following criteria were se¬lected for the study.
(1) Subject must be tobacco smoker, smoking 2 or more ciga¬rette / biddi per day for more than 2 years duration.
(2) Subjects must be smoking at the time of study.
(3) Subjects must not be a proved case of C. A. D. and should be in the age group of 25-65 years.
(4) There should not be any absolute and relative contraindica¬tion for Treadmill Stress Testing.

All the subjects who attended the programme were subjected to thorough clinical history which include O. D. P. Past history, per¬sonal history and family history in relation with C.A.D. The detail physical examination including measurement of Height, Weight, Temperature, Pulse, Blood pressure. Respiratory Rate and detail systemic examination of CVS, RS, CNS, AS and General Examination were carried out.
Following laboratory investigations were carried out in all subjects.
(1) Haemoglobin

(2) S. Cholesterol
(3) S. Triglyceride
(4) HDL-C
(5) LDL-C and
(6)PPBS
(7) Baseline E.C.G.
(8) T.M.T (Treadmill Stress Testing).

Detail study of tobacco smoking behaviour was carried out by personal interview and questionnaires.

By using various questionnaires interview method and .Modi¬fied 16 PF personality test, etc. were carried out to study the personality and psychological status and sedentary life-style and emotional stresses.

Health Educaiton was provided to all individual regarding the Hazards of tobacco smoking and benefit of stopping smoking, Role of other risk factors in development of C.A.D. by using mul¬tiple choice questionnaires. The significance of modification of C.A.D. risk factor for the primary prevention of C.A.D. was also included in M.C.Q., & Health education.

By using progressive muscle relaxation technique, all subjects were achieved physical and mental relaxation. All subjects were taught to give auto suggestions during trans-state (self-Hypnosis) "Whenever there is a thought of smoking in my mind I will be¬come aware of it and I will control it."

This suggestion was followed by negative reinforcement therapy of Cautella. Here, the patients were taught to give fol¬lowing suggestion during self hypnosis. "There are the two paths. I have to choose the one path. The 1st Path (smoking path) on which I am going is full of miseries like heart disease, cancer, cerebral stroke; limb amputations etc. I am coming back for the 1st path and going to the 2nd path (no-smoking path) which is full of happiness and health.

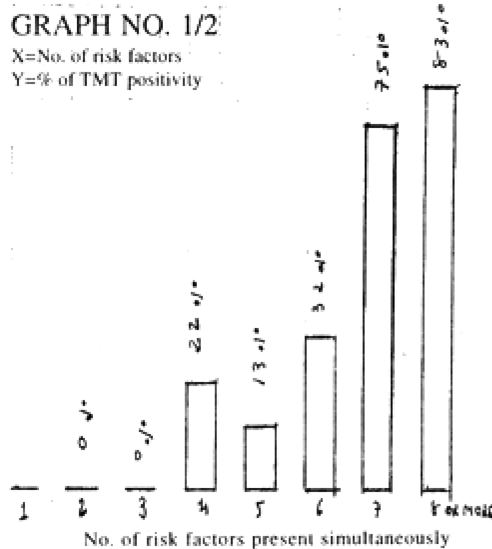
Observations and Results
32% of the subject were TMT positive suggesting presence of C.A.D. Prevalence of risk factor of C.A.D. like diabetes Type-A personality, hypertension, hypertriglyceridemia, hypercholestermia, low HDLC. emotional stress, were significantly high among tobacco smokers showing TMT test positive com¬pared to TMT test negative group. Prevalence of these risk factor of C.A.D. were still higher in both the group in compared to non smoker group (Table - 3)

Prevalence of C.A.D. was directly proportional to the preva¬lence of no. of risk factors present simultaneously. There was strong dose duration relation with C.A.D. and tobacco smoking. (Graph No. I)

All individual were reached to adequate physical and mental relaxation and all learn to give auto suggestions, (self Hypnosis).
At the end of short term follow up period 24% (12 out of 50) had stopped the smoking and similar percentage had reduced the frequency of smoking significantly, success rate 24 to 48 %

TABLE - 3
TABLE SHOWING PREVALENCE OF RISK FACTOR OF C.A.D.

Name of the risk factor	Prevalence of Risk Factor		
	% in TMT +Ve	% in TMT-Ve gr.	Non-smoker
No cigarette to heavy smoking more than equal to 10 per day	88%	65%	0
Duration of smoking more than and equal to 10 years	100%	65%	0
Pack year factor more than 10	88%	50%	0
Pack year factor more than 30	50%	20%	0
Symptomatic	37.20%	17.50%	5%
Positive Family History	31%	12%	7%
Overweight	43%	30%	15%
Diabetes mellitus		32%	6%
10%			
Altered GTT	56%	32%	18%
Hepertension	32%	18%	14%
Systolic Blood Pressure more than 120	94%	50%	34%
Sedentary Life style	56%	42%	40%
Type A personality	81%	53%	32%
Stress in life	94%	79%	30%
Hypercholesterolaemia	75%	59%	28%
Hypertriglycerideamia	62%	36%	20%
C/HDL-C ratio more than 5	50%	35%	18%
	Total	n = 50	



The graph shows (hat as the numbers of risk factors
Increase, the TMT Positivity is increased.

During the study it was observed that tobacco smoking is com¬mon among the male sex, type-A personality and stressful life which are also the risk factor for C.A.D. Tobacco smoking is as¬sociated with increase serum level of cholesterol. Triglyceride, and low level of HDL-C which are also significant risk factor for CAD.

Tobacco smoking interacts synergestically with other CAD risk factors like diabetes, hypertension, dyslipidaemia and further in¬crease the risk of CAD. So the overall CAD risk is increased manyfold.

Discussion :

As discussed previously the CAD risk is increased many fold in tobacco smokers, the benefits of stopping smoking is equal in both the group (TMT positive and negative group)

(1) By stopping the smoking the benefits will be immediate one, because the smoking related dyslipidemia is reversible with stopping the smoking.

(2) The synergistic interactions with other risk factors will be stopped so the risk of C.A.D. will reduced upto non smoker level within 12 months of stopping smoking.

Benefits of stopping smoking in patient with C.A.D. are many
(1) Tobacco induced angina disappears
(2) Frequency and severity of Angina decreases.
(3) Tobacco reduces the threshold of VT/VF By stopping the

smoking the risk of sudden death will be decreased. The study has shown that the risk of C.A.D. is directly propor¬tional to the nos. of risk factors which are prevaled among single individual. The study has also shown that large number of risk factors are prevaled among tobacco smokers, and many of these risk factors are modifiable by modern science

[like (hypno¬therapy)].
In all circumstances the tobacco smoking should be strongly dis¬couraged for the benefits of cardiac health.

Basic science:
* Concept of Behavioural Physiology and learning theory. Behaviour is an observable response to stimuli. This can be ex¬pressed as S -- > R By doing various experiments on men and animals like (dog, rat, pigeon, monkey) physiologists like Pavlov and Schinner concluded that if the S -- > R is followed by reward (Pleasurable/positive reinforcement) behaviour will be frequently repeated and leads to haiisi formation.
if the S -- >R is followed by punishment or not reward the behaviour will seize to occur. This is known as extinction. This can be expressed diagrammatically as follows
* Methods of stopping smoking (Table no.4)

Hypnotherapy
Only limited no. of reports are based on based on appropriate follow up data state whether patient actually stop smoking. Some therapist claim good results based on their own estimate or faulty evaluation. Hypnosis can help small no. of cases to help to stop smoking. Patient must assume that the responsibility for chang¬ing his behaviour is his own and must recognize that failure canbe blamed only on himself and not the therapist. Simon and others describe following approaches to hypnotic procedure.
(1) Direct suggestion
(2) To alter the smokers perceptions to smoking behaviour
(3) Adjuvant to psychotherapy
(4) Aversion and negative reinforcement
(5) Positive operant conditioning (rewarding himself)
(6) Self hypnosis
(7) Desensitization
(8) Counselling

Methods can be delivered as
(a) Individual session — Single
— Multiple
(b) Group session — Single
— Multiple

For self hypnosis patient is instructed to use the technique 3-10 times per day.

Spiegel states that hypnosis should be combined with patient motivation which create the expected attention and arouse con¬centration that leads to new perspective regarding the smoking behaviour. This self hypnosis technique deletes the old concept of his own thoughts and help to reprint of new thoughts, to stop smoking for the sake of his own well-being. This give him the power to stop smoking.

Table - 4
Step Care approach to stop smoking

1ST Step:
(1) Hypnotherapy
(2) Behaviour therapy
(3) Psychotherapy

2nd Step : Nicotine Replacement
(1) Nicotine Gum
(2) Nicotine Patch
(3) Nicotine Inhalant

3rd Step: Pharmacological therapy
(1) Tranquilizers
(2) Antidepressants
(3) Clonidin
(4) Rapid release Nicotine (Aerosol)

Pidderson claims 36 to 75 %.
Pidderson claims quit rate to 53%.
Hall and others claim 57% success rate at the end of 1 year in
highly motivated patient.
Kline claimed 88% rate in 1 year follow-up of his 60 smokers group.

Spiegel stated that the benefits of hypnosis is depending on one's capacity to go trans. Encouraging families, friends and social sup¬ports aids significantly to stop smoking. In his study success rate was 40% in low trans capacity, and 80 % success rate in high trans capacity smokers. Here it should be noted that most of the studies including mine lacked biochemical verification of absti¬nence of smoking.

Individual programme with multiple sessions resulted in high success rate.

The Hypnotherapy can be combined with other stop smoking methods and success rate can be enhanced further.

* Benefits of self hypnosis
(1) Suggestions act on subconscious mind.
(2) It corrects the defects in personality.
(3) Conscious mind of a person give knowledge to his subcounscious mind.
(4) Conscious mind of person clarifying the fnisconcept of his subconscious mind.
(5) It takes about 6 months to work.
(6) Patient is not dependent on therapist

The only disadvantage is it cannot be used in emergency nd in person with having Psychosis, sever depression, and lack of in¬sight; severe mental retardation.
* comparison of quit rates by various methods.
* Good reasons to stop smoking.
* Management of stress.

[A] Here the Therapist manipulate the stressful event in such a way that stressful event is no more stressful. Here stress is given on removing anxiety provocating situation.

[B] Situation itself is never a stressful. It depend on how person perceive it and looks at it. Persons perceptions at a situation de¬pend on his personality.

e.g. attending a party is an event which most people enjoy. But for reserve and shy person attending a party is a stressful situa¬tion. Here changing the personality and altering the cognitive and perception process by self hypnosis can be useful in stress management and indirectly help in stopping the smoking.

Table - 5

FACTORS AFFECTING THE SUCCESS RATE IN STOPPING SMOKING

(1) Motivation
(2) Cooperation of patient
(3) Duration of smoking
(4) Numbers of personality defects
(5) Age
(6) Belief and Faith in therapy
(7) Intelligence and Education
(8) Meditation (Ability to concentrate)
(9) Philosophical attitude
(10) Cooperation of family and friends
(11) Power of imagination
(12) Insight of problem
(13) Presence of precipitating factors like financial loss, death etc.
(14) Psychological mindedness
(15) Experience of Hypnotheratist

Table - 6

COMPARISON OF VARIOUS METHODS OF STOPPING THE SMOKING IN TERMS OF SUCCESS RATE BY VARIOUS STOP SMOKING TRIALS AT THE END OF 1YEAR

Intervention method	Success Rate (6 month) %	Success Rate (1 Yr.) %
1. Self-help	17	18
2. Educational	36	25
3. 5 day plan	15	26
4. Group	24	28
5. Medication	18	18
6. Nicotine Gum	28	11
7. Gum+Behaviour therapy	35	29
8. Hypnosis Individual	25	20
9. Hypnosis Group	34	27
10. Acupuncture	18	27
11. Physician's advice	5	6
12. Physician counselling	29	23
13. Physician-Pulmonary patient	24	32
14. Physician cardiac patient	44	43
15. Rapid smoking	26	21

Table - 7

GOOD REASONS TO STOP SMOKING

* For teenager
  (1) Bad smell
  (2) Bad teeth
  (3) Cost
  (4) Lack of independence
  (5) Sore throats
  (6) Cough
  (7) Dyspnea
  (8) Difficult for sports
  (9) Frequent RTI.
* For Parents :
  (1) Respiratory Infeciton to children
  (2) Poor model to child
* New smokers :
  (1) Easy to stop smoking
* For Asymptomatic Adult :
  (1) High risk of Heart Disease
  (2) High risk of Lung Cancer
  (3) Bronchitis and Asthma
  (4) 5-8 years shorter life span
  (5) cost of cigarette
  (6) cost of sickness
  (7) Bad breath and teeth
  (8) Social inaccessibility and inconveniency
  (9) Increase ability to do exercise.

CONCLUSION:

Coronary Artery Disease is a multifactorial disease.
Tobacco smoking is a major independent risk factor for C. A.D.
Tobacco smoking is prevaled among male sex, type-A person¬ality and stress prone persons which are risk factor for C.A.D. Tobacco smoking interact synergistically with hypertension dia¬betes dyslipidemia etc, which are potent risk factor for C.A.D. So the overall risk of C.A.D. is increased many fold.

The benefit of stopping the smoking are many. This can be taught during education programme at every level of education.

The self hypnosis is an efficient, safe and harmless method to help to stop smoking. It can be given in adjuvant to other method. The success rate is usually in the range of 0 to 80% (Our 24 to 48 % success rate).

Well motivated person, with good supports of family mem¬bers and friends, the success rate can be further increased upto 80% in long term follow-up.

In animal models and human angiographic proved Athero¬sclerosis C.A.D. lessions may regress to normal if the underlying risk factors like tobacco smoking is identified and modified by some methods like self hypnosis. Thus stopping the smoking by self hypnosis leads to reduction in risk of C.A.D. and within one year of stopping the smoking the risk is reduce to equal to non smoker. Thus hypnotherapy can play significant role in preven¬tion of Coronary Artery Disease.

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DIATRIZOATE COMPOUNDS (UROGRAFIN) TREATMENT FOR SUDDEN HEARING LOSS

Dr. J. R. TALSANIA ENT. Surgeon , V. S. Hospital.

There are few conditions in medicine where the management varies from Physician to Physician. Idiopathic sudden Hearing Loss (SHL) is one such condition. There is no consensus con¬cerning proper management for SHL. In this study we have tried to assess the role of Diatrizoate Meglumine (Hypaque) which was first reported by Prof. Tomotsu Morimimtsu of Japan at V Inter¬national Workshop on Middle-Ear Micro surgery and Fluctuant Hearing Loss held in Chicago in 1976.

In our study, Twenty eight (28) patients having SHL were treated with Diatrizoate Compounds (Urografin).

SHL are of three types.

Type I Moderate involvements predominantly for the low tones but involving 2,000 to 8,000 Hz. The speech discrimina¬tion score is.depressed.

Type II Moderately severe SN loss for the complete range of pure tone with a level of 50 to 60 db for the speech range and a precipitous drop after 3000 Hz.

Type III Complete SN loss with no discrimination for speech possible.

In this study, I cc of urografin was given I/V as a test dose, and after 30 minutes, if no signs of reaction were seen, 20 cc of urografin were injected I/V daily for 7 days. If recovery was noticed, then treatment was continued for further 7 days.

Diatrizoate compounds (1 ml urografin contains sodium diatrizoate 0. Ig and meglumine diatrizoate 0.66 g) which is rou¬tinely used in radiology, was utilized in our study as a treatment in SHL, with the aim to know its response in hearing loss.

Due to the similarities that exist between the renal tu¬bules, where diatrizoate compounds are filtered, concentrated, and excreted, and the stria vascularis, where a lesion could exist to cause sudden but reversible hearing loss, Diatrizoate compounds could have, as yet, unexplained effect. It is Prof. Morimitsu's hypothesis is that SHL without vertigo could be due to a break¬down in the blood cochlear barrier in the area of the stria vascularis with subsequent decrease in the endocochlear DC potentials. He suggested that, because of the molecular size and configuration of Diatrizoate Compounds, the broken membranous process are filled and sodium pump activated to restore the normal DC potential.

Shea1 and Emmett 3 studied 30 patients with SHL treated with Diatrizoate Meglumine (Hypaquc). Of these patients, 30% had a good response, 23% had a moderate response and 47% had no response.

The present study also shows excellent response in 35.7! % cases, moderate response in 32.15% of cases, and 32.15% cases there was no response with urografin therapy.

* Dr. P.M. RANADE, E.N.T. Surgeon is co-author of this article.

A STUDY OF HBSAG AT V.S. GENERAL HOSPITAL AHMEDABAD

Dr. Parul D. Shah M.D. Asst. Prof, of Microbiology
Dr. J.S. Deokule M.D.Prof. & H.O.D. Pathology & Microbiology.

Viral hepatitis is a systemic disease with Primary inflammation in the liver. It is caused by Hepatitis A virus (HAV), Hepatitis B virus (HBV), Hepatitis C virus (HCV), Hepatitis D virus (HDV), Hepatitis E virus (HEV) and Non A, Non B virus (NANB). Major virul hepatitis clinically resemble each other but infection caused by hepatitis B is the most severe and at times fetal.

Hepatitis B virus (HBV)
Hepatitis B virus belongs to the family 'Hepadna virus'.

Transmission :- HBV is transmitted by (1) Artificial inoculation of infected blood and blood products. (2) Therapeutic, prophylac¬tic and diagnostic procedures by percutaneous route.

Incubation period : Relatively long, 2- 6 months

Outcome of Hepatitis B infection
(a) Death 1% due to fulminant hepatitis
(b) Recovery : 90-95% due to Immune mechanism

(c) Persistent infection :

(1) Asymptomatic carrier
(2) Chronic Persistent hepatitis.
(3) Chronic active hepatitis.
(4) Cirrhosis of liver
(5) Hepato cellular carcinoma.

Sere-logical test in HBV infection.

	Late incubation	Acute Early stage	Hepatitis Late stage	Simple Carrier	Late Convalescnce
HBsAg	+	+	+	+	-
HBeAg	+	+	-	-	-
Anti-HBs	-	-	-	-	+
Anti-HBc	-	+	+	+	+
Anti-HBe	-	+	+	-	+

A study of hepatitis B antigen was done at VS.General Hospital. Ahmedabad. It includes blood donors, Prc - Operative patients, suspected cases of hepatitis and known cases of hepatitis. A study was done during last three years 1996,1997,1998.

Total no. of 76118 samples were exmined out of which 1411 were positive . The percentage of positive samples is 1.85%.

Total No. Sample tested				**Positive Samples.**		
Year	Blood doners	Ward OPD Patient	Total	Blood doners	Ward OPD Patient	Total
1996	12115	11423	23528	153 (1.26%)	295 (2.58%)	448
1997	12838	13036	25874	117 (0.9%)	360 (2.76%)	477
1998	12224	14482	26706	122 (0.9%)	364 (2.51%)	486

High risk groups recommended for HBV vaccination.

Groups

(A) Pre exposure

1. Health care workers with exposure to blood or needle-stick.. Plasma derived vaccine or

Recombinant DNA vaccine.
2. Hemodialyses patients. Dose : Three dose by IM injec¬tion at 0,1 & 6 months.
3. Homosexuals, drug abusers.
4. Blood and blood products recipients.
5. House hold and sexual contact of HBV carriers.

(B) Post exposure.
1. Infants born to HBV mothers. + Hepatitis B - immuno-globulin
2. Health care workers having needle stick experience to human blood. Plus HBV vaccination.

APPLICATION OF CRYO IN SURGERY

Dr. AJAY .R MUNSHI M.S., FACS, FICS. Ph.D.

Introduction
Though Cryo Surgery is known for the last several decades its first use for piles was done in 1969 by LEWIS. Nitrous Oxide produces temperature in the range in the range of -90/C to -98.C.Carbon Dioxide produces -68 .C. Liquid Nitrogen produces - 198 .C.

Cryo – Biology
During the rapid frezing, production of fine crystals in intra and extra cellular water occurs which causes thrombosis in capil¬laries, arleries. veins and lymphiatics. later necrosis due to throm¬bosis of micro circulation causes autolysis and sloughing.

In Cryo - Surgery the treated area gets sharply demarcated. Reactionary and secondary hemorrhage is rare. Permanent local anaesthesia in frozen tissue occurs. Healing with minimum scar¬ring occurs.

Application of cryo surgery
1. Haemorrhoids
2. Superficial Warts
3. Acute Anal Fissures
4. Non Healing Ulcers
5. Hemangiomas

The local effects of freezing on piles are :
- The Haemorrhoids become swollen and red.
- Pale spots appear and coalesse to form pale patches.
- The whole haemorrhodial area becomes pale and black.
- Haemorrhoids disintegrate and come away by 18th - 20th day
- There is profuse discharge upto the first six days and then it diminishes.

Results
- The total umber of patients in which Cryo Surgery was done by the author was 1250 patients.
- Excellent results were seen in 80% of the patients.
- Satisfactory results were seen in 15 % of patients.
- Little or no improvement was seen in 5% of the patients.
- Recurrence rate requiring retreatment was in 7% of the patients.

Advantages of Cryo Surgery
- It is a simple technique and it is cost effective.
- It can be done under local anaesthesia and on out pa¬tient.
- Post operative pain and bleeding is minimal after Cryo Surgery.
- Patient can return to work early after Cryo Surgery.
- It is the procedure of choice for medically unfit patients and aged patients.
- Theonly disadvantage of Cryo Surgery is that profuse discharge occurs for upto6 days but then diminishes.

AUTOMATION IN BIO - CHEMISTRY

Dr. C. Chakrabarti M.D. Asst. Prof. Of Bio – Chemistry

More emphasis is given on clinical orientation and interpretation of biochemical test results in 1st MBBS syllabus. Hence it is need¬less to say that student of basic medical science should be more conversant with the laboratory instrumentation; because interpre¬tation of lab results requires knowledge of test performances both analytically and clinically. The result must always be considered in the light of clinical findings. Thereby increasing the interest in the subject as well as more conversant with the variation in the biological body fluids.

Automation is regarded by many as a breakthrough in clinical biochemistry. Though historically the first real autoanalyser of clinical chemistry was done by Technicon Corporation through introduction of the autoanalyser in the year 1957 and subsequently its descent SMA series, SM AC. all based on continues flow analy¬sis to meet the increasing demands of the laboratory and clinical needs. After the approaches developed, that mechanized all the old established manual steps where in sample are analyzed dis¬cretely leading to the introduction of variety of discrete analyzers often with the help of microprocessors.

The principle use of biochemical data is to monitor the cause of condition or the response to treatment either when the conditions metabolic in origin or when it is associated with measurable bio¬chemical changes. It is said that what mind does not know, eye can't see, once a student of medicine conversant with the method¬ology of instrumentation it is easy & free to perform more valu¬able, interesting & creative work in modern medicine.

ARRIFICIAL NEURAL NETWORK *

Prof. H.S. Mazumjar Bio - Medical Engineer, PRL

Simulations of Man Machine Interface using Artificial Neu¬ral Network.

Computer simulations are increasingly being used to substi¬tute many complex, time consuming and expensive scientific and technological experiments. Biological brain is very crudely simu¬lated by Artificial Neural Networks (ANN). ANN's are electron ic circuits or its computer software simulation that is used in de¬signing artificial intelligent (AI) systems.ANN's are successfully applied to demonstrate many exclusively human capabilities like learning, prediction of time varying function, speech recognition, language translation, associative image, memory, mapping of com¬plex function,generalization from random observation and capa¬bility of working with erroneous or partial information, ANN's are not only used for solving real life problems but are used to understand our problems solving mechanism. It is seen that a multi - layerd feed forward type ANN can find out the equation of a circle or mathematical relation between the sides of right angle triangle etc.. It also used to simulate behaviors like autonomous walking of two legged robot, avoiding obstacles, finding the short¬est root etc.. However the capabilities of ANN's today are far too primitive compared to the capabilities of human brain.

One of the area where ANN could be potentially used is "Ma¬chine Interface". The future machines are likely to be baking or¬der and report back directly through electrical signals of the ner¬vous system. These possibilities are already demonstrated through artificial hearing and artificial vision experiments. To achieve more complex interfacing it is necessary to interpert the motor nerve signals and train the brain to interpret external sensory nerve signal. This process can be summarized as mapping and learning the behavior of an external device connected to the nervous sys¬tem. This is similar to the way we learn to map bicycle riding, typing etc. in brain.

As a first step to achieve above goal large randomly connected feed forward type neural network is designed to solve a class of problems. The higher functions building blocks are simulated as artificial neuron and are interfaced to the above network. The composite network is then trained and optimized to perform gen¬eralization from observed dated. As a result, it is found that, the original network adopts the externally interfaced building blocks and the total size of the network reduces considerably. Some of the building blocks are designed using stochastic type logic. Such building block's input - output are similar to the input - output of biological neurons. This work is carried out in the view of future possibility of bio - electronic systems.
* This article is summry of speech given by prof. H. S. Mazumdar on the occation of Ivan PAVLOV memorial lecture on neuro science

FINE NEEDLE ASPIRATION CYTOLOGY. (F.N.A.C.)

Dr. Jayashree M. Shah
M.D. Patho., Asst. Professor of Pathology.
Dr. Falguni R. Shah
M.D.Patho., Asst. Professor of Pathology.

Introduction

- Technique began to flourish in 1950 and I960 in Europe and scandinavia.
- Soder strom and Fran/.cn in Sweden Lopes Cardoxo in Hol¬land, (all clinicians / Haematologists) became major proponists studying thousands of cases each year.
- Zajecek among the 1st pathologists to embrace F.N.A.C. in collaboration with Franzen at the karolinska hospital.
- They define - diagnostic criteria & determine diagnostic accurancy in a variety of condition.

Advantage

- Extremely valuable complement to histopathology.
- Simple, rapid, painless, less expensive procedure
- Low risk of complication.
- Avoid unwanted surgery, helps in planning, staging and post operative follow up of malignant lession e.g. breast.

Limitations

- Expertise person
- Experience
- Representative smears

Indications

- Any palpable lessions like Lymphnode, thyroid, breast and superficial growth of skin, subcutanious and soft tissue.
- F.N.A.C. of deeper structure can be done with help of U.S.guided.

Contraindications

- Coagulation disorder
- With respiratiory failure Lession of acute on set.

Preparation For F.N.A.C. Equipment.

1. Needles.
   22 gause 1.5 inch, long disposable needle.
2. Disposable 10ml. syringe.
3. Microslides
4. Gloves
5. Fixatives.
   - Ethen - alcohol fixatives.
6. Staining
   a. Papanicolaou" staining

b. Haematoxyline - eosin staining
c. Giemsa Staining d. Special Staining technique

Aspiration Technique
Palpable lession fixed with one hand, skin in cleansed and needle is inserted in to it, full suction is applied, needle tip is moved around, neutralize the pressure in the syrinse and needle is withdrawn. Material is expressed on to glass slicke after filling the syringe with air.

Smearr are prepared and fixed.
In V.S.Hospital F.N.A.C. is started from 1991
Average 1000 per year F.N.A.C. are recorded.
Good corelation with histopathology (about 80% to 90%)

REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME

Dr. S.B. Trivedi
X' C.T. Surgeon V.S.General Hospital President, Guj. State TB Association

* More adults die from TB than from any other infectious disease
--1 every minute, more than 1.000 every day in India.

* The National Tuberculosis Programme was began in 1962 and created an infrastructure for TB control throughout the country. However, it has not achieved the desired results.

* Dr. Hiroshi Nakajima, Secretary General of the World Health Organization, has declared that "The DOTS strategy represents the most important public health breakthrough of the decade."

* The strategy of Directly Observed Treatment, Short-course(DOTS) is based largely on research done in India in the field of TB over the past 35 years.

* Since 1993, DOTS has been pilot tested in 20 cites of India as the Revised National Tuberculosis Control Programme (RNTCP). In the RNTCP, the proportion of TB cases which are confirmed in the laboratory is double that of the previous programme, and the cure rate is nearly triple that of the previous programme.

* The operational feasibility of DOTS in the Indian context has been demonstrated, with 8 out of 10 patients treated in the programme being cured, as compared with approximately 3 out of 10 in the previous programme.

* Multi-drug-resistant tuberculosis (MDRTB) is a result and symp¬tom of poor programmme performance. Reliable and representa¬tive data on the rate of MDRTB in India is not available. DOTS has been shown to prevent the emergence of MDRTB and to re¬verse the trend of MDRTB in communities in which it has emerged.

* The Human immunodeficiency virus (HIV) is the strongest known risk factor for development of TB. In some countries, HIV has tripled TB case loads. However, DOTS can cure TB even in HIV- positive people.

* Success of the RNTCP depends on communication, collabora¬tion, and coordination between the Government and private prac¬titioners, nongovernmental organizations, and other institutions of prominence such as medical colleges.

* In the next three years, the RNTCP is to be implemented in a phased manner in population of more than 300 million through out India, and at the same time the rest of the country will be prepared for RNTCP implementation. Phased Implementation is essential to success.

* By the year 2000, the number of infectious patients cured per year, will increase from the current level of at most 1,50,000 to more than 5,00,000 per year. By the year 2000, 1,00,000 fewer patients will die every year from TB as a result of the RNTCP. Every patient who is cured stops spreading TB, and every life saved is a child, mother, or father who will go on to live a longer, TB-free life.

Services Provided by the RNTCP

The RNTCP strengthens tuberculosis control services area.

* Free of cost services including supply of drugs to patients;
* High quality sputum microscopy, with prompt reporting of re¬sults;
* High quality evaluation and appropriate treatment;
* High quality drugs;
* Supply of full requirements of all drugs and their uninterrupted availability;
* Provision of Direct Observation of Treatment (DOT), usually by the general health services, or by community volunteers, ensuring that drugs are actually taken by your patients;
* Technical assistance in the care of patients and control of tuber¬culosis.

SELF - HYPNOSIS

Dr. Hrishikesh Jana
M.SC..M.B.B.S.,Ph.D.,FA.M.S.,F.I.A.B.S.,F.I.RS.,FW.S.C.Y.,FI.C.A.
X' Prof, of Psychosomatic medicine K.M.School of RG. Medicine & Research

Man since his very early existence has been confronted with inju¬ries, illnesses and sufferings and has been looking for their rem¬edies. In recent years of stress and strain, he has been using vari¬ous methods in various cultures to get relief from those remadies. Appeasement of evil spirits, chanting and offering in temples, trance-like states before the Gods and Goddesses, King's bless¬ings, Magnetotherapy, Mesmeric passes, Yogic exercises, Medi¬tation and Hypnosis gave been used to remove sufferings of man. Modem researches involving biochemistry of mental illness have led to the development of Psychiatry. Drugs used in modem medi¬cine, though of immense help, have many side-effects.

Hypnosis is an inherent trait of man. It is a natural state of body and mind slightly different from waking and sleep. It is more enjoyable than waking and sleep and endowed with power of healing and of making one heathier in body and mind. It is not different from what Dr. James Bdraid of Manchester named HYP¬NOTISM (1820) and what was at one lime known as MESMER¬ISM (1784). It is a state of concentration, which is commonly experienced by a man while he is absorbed in reading or in marathon running etc. This state is characterized by production of a ncurochemical 'endorphin' (symbol of relaxation) in blood and lowering of level of hormone 'hydrocortisone' (symbol of calm¬ness), produced by the Adrenal or Suprarenal glands.

Neutral Hypnosis, a pleasant and profound relaxed state of body and mind without any suggestive manipulation, when practised daily for about 30 minutes, exerts a healing effect in the form of mind modulation of Autonomic Nervous System activity controlling the working of heart, lungs, stomach and intestine etc, of our body.

All hypnosis is Self-Hypnosis. Self-Hypnosis is one's natural aDiiity to use one s own inner processes of tocuseu aware-ncss and concentration to develop a state of increased responsive-ness to suggestions for positive change.

Self-hypnosis is characterized by its self-controlling and consistently active nature. It has a high degree of absorption in¬volvement. It has much more fluctuation of deeply, and an almost effortless way of thinking. It is a doorway to one's unconscious mind. One can be more open, understanding and can have a bet¬ter glimpse of one's inner self. One can review more objectively how one reacted in situations at work and in family during social interchanges. One could also use it to create a positive change in oneself.

Almost everybody can learn Self-hypnosis - a child of 5 years of age and a man of any age and sex. One can use it for combating some illnesses and for improving his performance and pleasantness of life. Even in the treatment situation, where doctor or therapist puts the patient into hypnosis, the patients are usually taught how to enter into hypnosis. This art and science of Self-hypnosis is likely to persist throughout his life and hence it can be utilised by him for achieving one thing or the other in his whole life. Side ill effects of hypnosis are definitely least when com¬pared with those arising out of other treatment methods in mo¬dem medicine.

To make best use of Self- hypnosis one should:
1. Know what is the hypnotic trance state and its characteris¬tics.
2. Experience the hypnotic trance state with the help of aqualified therapist.
3. Learn how to enter into hypnosis all alone at one's own place.
4. Have elementary knowledge about body and mind.
5. How to use hypnosis to restore healthy body and mind?
7. Step by step working in hypnosis for achieving a goal.
8. Employing simple technique for removal of tension, worries, and anxieties, for increasing body defence, to stimulate good personality traits for achieving successful and pleasant life.

Uses of Self - hypnosis:
1. Physical relaxation and mental calmness. Enhance learning potential.
2. Self - exploration to gain insight; problem solving and deci¬sion making. "
3. Increased self - confidence and creativity.
4. Anxiety, tension and stress management.
5. Increased performance in arts, music, sports, education, busi¬ness and so on.
6. Combats psychosexual and other emotional problems.
7. Control pain, obesity, addictions, insomnia, allergy, phobia (fear) etc..
8. Cures psychologically based symptoms e.g. high blood pres¬sure, tinnitus (constant sound in ear), bronchial asthma, and skin diseases like warts, acne, psoriasis, etc.
9. Removes tear ot dental and surgical operations.
10. Aid to practice of other altered states of consciousness like yoga, meditation etc..

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ACTIVE AGEING MAKES THE DIFFERENCE World Health Organisation-1999.

Dr. APARAJITA SHUKLA Dep. of P. & S. M.

Geriatrics-It is a branch of science, which deals with prob-Icitis of ageing preferably above 60 years.

There arc false belief that most older people live in developed countries & they are all the same. Men & Women age the same way. Older people arc frail & they have nothing to contribute. They are economic burden on society. But the truth is that most older people live in developing countries & they constitute di¬verse group of people based on different gender, culture, urban, rural setting, climate & geographical location.

Men & women aee differently as women live longer than men. Vast majority of older people remain fit in to later life maintaining high functional capacity by active ageing & improved life style in early life. Older people contribute to families, societies & economies. Moreover most old people work both in paid & un¬paid jobs.

Various action plans to improve health in old age are bal¬anced nutrition & diet to young girls & to avoid smoking in preg¬nancy, breast feeding to the babies, immunizing and providing balanced nutrition improves the health.

Educate the youngsters to avoid smoking, ban the sale of alco¬hol and regularly exercise to improve the health of adults.

Regular screening, vaccination & visit to doctor and active involvement in family, community and religious organization maintain the health of old people.

Give proper education to boys & girls to prevent gender dis¬crimination so as to improve the health of young girls.

T

NOBLE PRIZE QUEST

PAVLOV, IVAN PETROVITCH (1849-1936)

1. Pavlovian Theory : Behavioural theory of conditioned reflex'.

2. Pavlov Pouch : Exteriorised gastric pouch in experimental ani¬mal, retaining nerve and blood supply, by which Pavlov estab¬lished the psychic secretions of gastric juice in 1879.

The son of a poor priest in Riazan in Central Russia, Pavlov was destined for the Church, but instead studied medicine at St Pe¬tersburg, and later worked with Ludwig in Lwipzig and with Heidenhain in Breslau, on the circulation, an digestive physiol¬ogy, respectively. A brilliant physiologist, and a man of excep¬tionally rigid habits, he became physiologist at the military Acad¬emy of St Petersburg, and was awarded the 1904 Nobel prize for studies on the physiology of digestion.

HESS WALTER RUDOLF

Hess welter Rudolf, a Nobel Prize winner physiologist, Born on March, 17th 1881 & died on August 12th 1973 in Switzerland. He was originally an ophthalmologist by turned to study the physi¬ology and later on was appointed as director of physiological in¬stitute at University of Zuerich, where he was interested in study of Autonomic Nervous System. By using fine electrodes to stimu¬late the specific area of brain he concluded that stimulating cer¬tain area of brain produces behavioural changes similar to " stress response" and stimulation of other area (he called trophotropic region of brain) produces relaxation, calmness, timidity " Relax¬ation response."

STUDENT'S SECTION
Examination stress Management:

Dr. Janardan V. Bhatt, Dr. Smita Mehta, Psychologist

Dr. Sohan Derasari. Psychiatrist,
V.S. General Hospital.

These days we Listen many students of all age range, as well as many parents talk about examination stress. Almost unani¬mously, the words examination and stress are used with each other. So, at this juncture, when we have the examinations already started or is about to start, let us try to understand what is examination? what is stress related to it? as well as why they are used simulta¬neously? and what could be? its effective management.

In our education system, largely speaking, examination is period of a specified time, during which a student is expected to perform/write the answer of the questions asked in a skillful man¬ner so that the examiner can assess his knowledge about the sub¬ject. From students' point of view, when he is able to remem¬ber & reproduce the information/knowledge as in the examina¬tion within specified time he is considered as a successful stu¬dent. It is not only having known the information, but it counts only when he is able to reproduce that knowledge at right time in right manner. Thus gaining success at examination needs two variables -(A) having the knowledge & (B) being able to remem¬ber & reproduce it at the right time.

Many limes it happens that student who has worked hard throughout the year states feeling anxious - nervous and looses the confidence - is not able to work to his / her expectation & feels miserable. If we try to analyses and find out the why of it, the simplest answer it is your attitude which decides your behaviour. At any moment in life, this feeling of stress, anxiety is your inter¬nal attitude - it is within & not without from the external situa¬tion. Now before going into the details of what happens under tension let us know about how do we remember & learned for achieving the success.

[A] Having the knowledge : This is the basic require¬ment for any education & examination. For proficiency what is required is good basic root work - hard work & clear understand¬ing and there is no substitute to this the total process of memory calls for four 'R's.

REGISTRATION of information - if it is clear and be¬yond doubts, there are better chances of having accurate memory.

RESTORATION of information is like proper filing, which equips you with the information at right lime. When resto¬ration work is not very specific, student fails to pinpoint the data from his data-bank.

REVISION. Information collected & scrutinized needs repetitions for clear understanding. The number of revisions needed may differ from person to person.

RECALL. If previous the 'R's are perfect there are more chances of the final 'R' - recall to be accurate. This sequence of four 'R's says that if you have right information

(Registration) , classified & stored in right way (Restoration), your memory (Re¬call) has to be more accurate.

[B] Being able to remember & reproduce it at right time in right manner. When the preparation part is okay and there are no other physiological, anatomical or neurological complications, the stored information can be recalled at right time, But here comes in the component of psychology. Surveys indicate that when a person remains tense for more than an hour, it starts affecting the process of memory negatively. Here we see some students be¬ing highly tensed about the exams not only for days but for weeks & months together. Naturally their capacity to reproduce the learned information becomes weaker and that sets a negative cycle. As the student remains tense, he does not remember the subject properly & as he experiences inadequacy with his recall he be¬come more tense. We see very intelligent students caught in this trap, for whom after experiencing one failure, it becomes repeatalions of the negative experience. Here it is exactly thi? prob¬lem which we have to learn to manage.

MANAGEMENT OF STRESS :- (related to examina¬tion) As we have used the word very rightly, we talk of manage¬ment of stress rather than its eradication, because many a times stress has its positive effects of directionality & goal achievement. Of course, there is no second option to full thorough preparation, but if even after that you feel too stressed, here are some tips, which can be followed regularly before / during the period of ex¬amination.

(A) Pay attention to your bodily & menial needs of re¬laxation. Don't stretch beyond the capacity.
(B) Pay attention to your eating habits & quality of nutrition.
(C) Make it a point to refresh your mind with recreation / entertainment for some time. It adds to your capacity to concen¬trate & directionality.
(D) Make it a habit to relax and that to concentrate on the subject matter. This is the simplest method of relaxation which is based on the breathing pattern.

- Sit comfortably
- Try to loose - release the muscle tensions & try to relax.
- Concentrate on vour breathine oattern
- Intensionally try to slow down your breathing pattern. Have a good slow breath which expands and reaches the abdomi¬nal cavity. Slowly breath out the toxins from the body.
- Now try to remember the material you have prepared in a systematic way with full confidence.

Once you master this skill, it can be used even during the examination hall very successfully, if you find yourself blocked.

(E) If you are not able to getout of the impact of stress, take help of experts can help you gain your confidence back. Don't keep on blending the negative thoughts take the charge on your thinking.
(F) Lastly develop a very positive attitude for examina¬tion, which comes to you as

chance to prove & exhibit the efforts you have put in all through out your academic term, enjoy it, relish it & be ready to go to the higher stage.
This attitude itself will make the experience of examina¬tion an enriching & empowering experience !
Try it!! feel the difference.

* This article is summary of speech given by Dr. Smita Mehta at W.R.HESS memorial lecture on Behavioral Science.

CASE REPORT

Dr. Atul Parikh / Dr. Janrdan Bhatt
Hon. Physician X' Sr. Registrar of Medicine S. C. L. General Hospital

A Hindu multipara female patient aged 37, named Rampyari, was admitted in Municipal Hospital Ahmedabad in labour room for delivery of her 4th child. Patient delivered a male child with¬out any intervention. A routine Injection Methylergometrine one amp. was given intramuscular route for prophylaxis of postpartum hemorrhage, at 9-00 P.M. At around 10-00 P.M. patient devel¬oped retro sternal chest pain, Ghabharaman and perspiration. Pa¬tient was referred to physician for urgent opinion.

When examined patient was restless and had complain of retro sternal chest pain, Ghabhareman and perspiration pulse was 112 / min. and regular blood pressure was 176 / !20, respiration was 28 / min. and temp, was normal. Patient was conscious and rest¬less. C.V.S. shows S4 gallop rhythm. R.S. & C.N.S. was normal. There was no hepato - splenomegaly or ascites.

The urgent ECG was taken and showing classical changes of myocardial ischemia as below :

The patient was shifted to ICCU and anti ischemic therapy was started which include rest, oxygen, tablet, nitroglycerine, as¬pirin etc Cap. nifedipine 5 mg. was given one stat orally and then every four hourly with close monitoring the pulse, BP and ECG.
The next morning the ECG was absolutely normal, pt was clinically normal.

An ergot alkaloid methylergometrine is routinely used for the prevention and treatment of P.P.H., Uterine involution and other uterine bleeding. This type of ergot preparation are known to produce hypertension, vasoconstriction (by direct action) and en-dothelial damage and thrombotic allied cascade/events. Such phe¬nomenon may occur in coronary arteries and may produce an¬gina, A.M.I., and other ischemic syndromes. In above case re¬port the ischemia was successfully reverted with a calcium chan¬nel blocker nifedipine.

Though the complications are rare but one should use such ergot preparation with due precaution in elderly patient specially in the presents of hypertension, peripheral vascular disease. If complications develop and treated in time such ischemia may be reversible, but delaying treatment may result irreversible sequelae

CONFERENCE REVIEWS

5th annual conference of vascular society of India was held in Ahmedabad on 27 & 28th Nov. 1998. Total approximately 400 delegates attended the conference from India and abroad. There were nine sessions which includes the venous disorders, endo vascular procedures, upper and lower limits vascular disorders, Aneurysms, composite procedures, limb salvage and trauma. The guest lectures, papers, seminars, symposiums, were also held on various aspects of vascular surgery. The most prominent lecture was of Dr. Callum Derby, U.K. on emergency treatement in Acute superficial thrombophlebitis, and by Dr. Neelakandhan of Cochin on arterial aneurysms. Other interesting topics discussed were (1) 'role of angioplasty and stents in Budd - Chairi syndrome', with this form of recent modality of treatment there is remarkable clini¬cal improvement with regression of Ascites, hepatomegaly, and improved liver function. (2) Significant improvement in chronic venous ulcers, after Tripathi' venous valve replacement. (3) There is 12 to 35 % incidence of auto immune antibodies in vascular surgical patients and inspite of aggressive immunotherapy, there is risk of auto immune antibodies - related morbidity and mor¬tality. (4) Use of Cyanoacrylate glue as a surgical sealants to ar¬rest the bleeding from vascular anastomostic sites. (5) Carotid endarterectomy in symptomatic high grade carotid stenosis. The author conclude that the role of carotid endarterectomy is of known benefit but increasing awareness is necessary for reducing the over all incidence of stroke and formation of stroke unit with an ag¬gressive approach along with mass public awareness can only achieve this target.

Dr. Malay D. Patel
Vascular Surgeon V.S.Genetal Hospital

2nd National conference on HIV/AIDS was held at G.C.R.I. Ahmedabad on 6-7 Feb. 1999.350 experts of sub and super speci¬alities of all over the India and abroad gathered

to share there experience and knowledge on HIV and AIDS. Overall motto of the conference was "the opportunistic infections in AIDS and their diagnosis and management. There were sessions for respiratory, gastrointestinal, neurological, Hemato - oncological and derma-tological menifestations of AIDS and their management.

The guest lectures of foreign experts were also held during the conference out of which the most prominent were "the Fungal infection in HIV " by Dr. Minaxi Rathod from Texas U.S.A.and Antiretroviral therapy by Dr.Chris Taylor (U.K.). Preventive as¬pects of HIV & AIDS were also included like epidemiology of HIV, Blood and universal precaution, public health issuses. Live presentation of preventive measures of HIV & AIDS by Dr. <3ilada of Pune was really rememberable. The key issuses of debates were the prostitution, pear education, role of N.G.O., role of S.T.D. Clinics and Tuberculosis and AIDS.

The conference has given the simple and feasible guide lines to practising doctors and physicians to manage the patient with HIV & AIDS in community at large and to academicians the new insight to think and plan the policies to combat the HIV & AIDS at national & international levels.

Dr. Atul Patel Hon. Physician
SCL General Hospital Ahmedabad

5th national congress on "Assisted reproductive technology and advances in infertility management" was held in Ahmedabad between 25th Feb. to 1st March 1999, atTagore Hall Ahmedabad. About 450 delegates from all over the country and abroad attended and participated the conference actively. There were twenty ses¬sions including valedictory function. The conference include guest lectures, orations, paned discussions, scientific papers, sympo¬sium, debates, on various topics on Assisted reproductive tech¬nology (ART) like Basics of ART, endoscopy, fetal wastage, re¬productive endocrinology, ovulatory dysfunctions, male infertil¬ity, tubal factor. The most prominent oration was given by "Con¬trolled ovarian stimulation and ovarian Hyper stimulation " by Dr. Michael Gronow and "Blastocyst culture and embryonic stem cell" by Dr.Ariff Bongso. Other interested topics were to include some (1) transvaginal administration of Bromocriptine in Hyper Prolactinaemia, (2) Medical management of unruptured ectopic pregnancy with 90% success rate. The mejdical treatment meant systemic methotrexate orally, IV along with Salpingocentesis (3) Recovery of sperms with fine needle aspiration in azoospermic man, (4) Immunological factors in recurrent pregnancy loss. Here the author conclude that the established therapy for antiphospholipid syndrome is Heparin, aspirin with prednisolone. There were plenty of reports on In Vitro fertilization & Embryo transfer (test tube baby).

Dr. Atul Munshi, M.D. Dr. Manish Banker
VS. General Hospital & Chlnay M.D. Meternily Hospital

Uptil now it has been considered that this time, it was the best conference of Research Society of Study of Diabetes in India (RSSAI). This 26th Annual conference was held on 18th, 19th & 20th of December 1998 at Ahmedabad.

Fortunately I was appointed as co-chairman of the Scientific Committee. Still we are receiving litters of appreciation from the delegates and this conference has broken the record of highest number of delegates.

We had invited a few speakers from foreign countries and there was also the presence of national experts in the subject. This time we had a full menu of most of the important and burning topics pertaining to diabetes. The auditorium was full of delegates. All the delegates attended all the sessions & had enjoyed the dif¬ferent Gujarati dishes.

The topics were appreciated like anything. There were topics like "Prevalence if Diabetes", "Prevention of diabetes", "Differ¬ent methodologies for detection of prevalence of Diabetes", con¬sidering the global and Indian scenario, as well as the real the me of one subject i.e. "Burden of Diabetes Intentionally & Nation¬ally" was discussed. There was also involvement of clinical prob¬lems and solutions of under nutrition in diabetes, conservative management of early diabetic nephropathy

There was also a symposium on quality of diabetic care, de¬mand management, intervention, self monitoring of blood glu¬cose, foot care, tertiary care centres etc. At different halls there were sessions like meet the experts and the topics were dyslipidemia in diabetes and determination of sample size and power in research studies.

We had two different important things in the form of work¬shop and poster presentation - started this time only. This in¬cluded computerization of clinical data, genetic methods in dia¬betes research. We had different orations in the name of experts. This included autoimmune diabetes in Indian Scenario, the ge¬netics of diabetes is and end insight ? We had also inter- disci¬plinary update like USG in pregnancy related diabetes, advances in management of peripheral vascular disease and endothelial dys¬function and emergencies in diabetes.

We had also discussion with experts in relevance of UKPP study, psychological problems in diabetes. Along with this the programme included pharmacological update on Siderafil, Repaglizide and indegenious remedies. We also kept an update on day to day problems like clinical problems in painful diabetic neuropathy, erectile dysfunction etc. There was also a symposia titled "Does fast food kill fast?" There was also a case presenta¬tion by experts as well as due attention was given on "exercise prescription in diabetes", "Is FBG the sole criteria of diagnosing DM and "control of diabetes without hypoglycemia".

Thus, the topics taken into consideration made a complete, delicious & nutritive academic dish.

Dr. Bharat B. Trivedi Dr. Mayur Patel
Prof. &Head of Dept. of Endocrinology M.D. V.S.General Hospital.

The annual meeting of Vitreo Retinal Society of India was orga¬nized by Dr. Usha H. Vyas (Organizing Secretary, at Tagore Hall) (Superintendent Professor of Ophthalmology, C.H.Nagri Eye Hos¬pital) on 19-20-21st February 1999. Best known Vitreo Retinal experts from India & abroad were gathered during the conference to share their views & provide feast of knowledge. They presented the most recent concepts, innovative techniques, state of the art procedures and shared their unique experiences in managing dif¬ferent situations pertaining to Vitrio Retinal diseases.

During the conference posterior segment problems like - Retinal detachment & PVR, Diabetic Retinopathy, Other vascular retino Patients, macular & Retinal degeneration, Trauma & tumors of eye were discussed at length.

Breakfast course were also arranged at C.H.Nagri Eye hospital on Flourocscent Fundus angiography & Indocyanine green angiog-raphy & at Retina Foundation on indirect ophthalmoscopy. These courses gave an opportunity to the participants to learn these ba¬sic & advance techniques in ophthalmology under the guidance of experts & latest instruments.

Almost 400 ophthalmologists from Ahmedabad, Gujarat & all over India, attended the conference & participate actively. Conference has also allowed to view the latest & most innovative ophthalmic products & services in the magnificent trade fair.

Dr. Usha H. Vyas
Superintendent Nagari Eye Hospital

DRUG COLUMN

Desmopressin. Synthetic form of VASOPRESSIN for use nasally in diabetes insipidus and nocturnal enuresis. Acts as an analogue of VASOPRESSIN (antidiuretic hormone), thus couteracts the high volumes of urine produced in both conditions. Destroyed by gas¬tric acid, but is well absorbed via the nasal mucosa.

Adenosine. Endogenous purine nucleoside which acts on spe¬cific receptors in heart muscle and coronary arteries to reduce heart rate. Given by intravenous injection to assist in diagnosis of certain fast heart rhythms and to convert some fast rhythms back to normal 'sinus' rhythm. May cause facial flushing, sweating, burning sensation, chest pain, palpitations, heart block, short¬ness of breath, headaches and blurred vision.

Carvedilol. Non-sective beta adrenoceptor antagonist with alpha antagonist acticity. Used in treatment of hypertension where its effects and adverse effects are similar to LABETALOL.

Buspirone. Anxiolytic used in short-tern relief of the symptoms of anxiety. Acts by different (but, as yet, undefined) mechanisms to the benzodiazepines. Does not have muscle relaxant or anti-convulsant effects. Takes longer ti have an effect than the benzo¬diazepines, but appears to cause less sedation and is less likely to lead to dependence. May cause headaches and dizziness.

Capsaicin. Naturally occurring substance found in Capsicum (sweet pepper). When appjied to the skin it depletes local painconducting nerve fibres of pain transmitter substance. Used topically to treat postherpetic neuralgin (pain persisting after shingles, which is caused by infection with the herpes zoster virus). Claimed to be effective in treating pain after psoralin Ultra Violet Activation therapy and in erythromelagia. Should not be applied to broken skin. May cause skin irritation.

Cisapride. A prokinetic agent reated to METOCLOPRAMIDE which facilitates movement throughout the gastrointestinal tract. Used to treat symptoms and lesion of gastro-oesphageal reflux and relieve symptoms of delayed gastric emptying. May cause abdominal cramps and diarrhoea but unlike METOCLOPRAMIDE is not associated with involuntary move¬ments.

Botulinum toxin A. Neurotoxin derived from the bacterium Clostridium botulinum. Binds to endings of nerves which supply muscles, to prevent the release of ACETYLCHOLINE, so pro¬ducing weakness or paralysis of those muscles, from which re¬covery occurs after 2-3 months. Used by local injection to treat patients with troublesome spasm of the eyelids, strabismus (squint) and twitching of muscles around the mouth. Effects seen within 2-5 days of injection. Unwanted effects include bruising around the eye, double vision, drooping eyelid, and weakness of facial muscles.

Abciximab. Monoclonal antibody which bind to receptors on the walls of blood vesswls and thus blocks the formation of a blood platelet clot. Used in non-invasive heart surgery (angioplasty) to reduce the risk of blood clots forming after the operation. May cause bleeding complications and should not be used in any pa¬tient with a previous history of such problems.

Reference:

Paul Turner, Glyn Volans, Heather Wiseman Drug Hand Book, Pub. By Macmillan Press Ltd., London and Basingstoke

SPECIALITY IN BRIEF

SYNAPTIC TRANSMITTERS ARE CLASSIFIED

More than 40 different chemical substances have been proved or postulated to function as synaptic transmitters, Most of these are listed in Tables land 2, which give two different groups of synaptic transmitters: One is comprised of small-molecule, rap¬idly acting transumitters The other is a large number of neuropeptides of much larger molecular rim and much more slowly acting:

Table-1
SMALL-MOLECULE, RAPIDLY]
ACTING TRANSMITTERS

Class I : Aeetycollne
Cless II : The Amines
Norepinephrine
Epinephrine
Dopamine
Serotonin
Histemine
Class III :Amino Acids
Y(Gama)-Aminebutyric acid (GABA)
Glyeine
Glutamate
Aspartate

Table - 2
NEUROPEPTIDE, SLOWLY ACTING TRANSMITTERS

A. Hypothalamic-releasing hormones
Thyrotropin-releasing hormone
Luteinizing hormone-releasing hormone
Somatostatin (growth hormone-inhibitory factor)

B. Pituitary peptides
ACTH
Endorphiri
Melanocyte-stimulating hormone
Prolactin
Luteinizing hormone
Thyrotropin
Growth hormone
Vasopressin
Oxytocin

C. Peptides that act on gut and brain
Leucine enkephalin
Methionine enkephalin
Substance P

Gastrin
Cholecystokinin
Vasoactive intestinal polypeptide (VIP)
Neurotensin
Insulin
Glucagon

D. From other tissues
Angiotensin II
Bradykinin
Carnosine
Sleep peptides
Calcitonin

Reference : Textbook of medical physiology "Arthur Guyton" 1997, edition Courtesy : Dr. R. N. Rao Prof, of Physiology & Bio-chemistry

Classification of Antihypertensive Drugs is Expanded

A number of new classes of antihypertensive drugs have come up in the recent years which holds promise towards better hy¬pertension control. This includes :

1. Newer angiotensin II receptor antagonist e.g. Losartan,
2. Dopamine receptor agonist e.g. Fenoldopam,
3. 1C channel opener e.g. pinancidil,
4. Neutral endopeptidase inhibitor e.g. Candoxatril,
5. Serotonin receptor antagonist e.g. Kentaserine,
6. Renin in¬hibitor e.g. Enalkiren,
7. Dual alpha,, and Ca++ channel blocker e.g. Monatepil.
8. Gene therapy. Of the various new classes of antihypertensive drugs, some have already been introduced in the Western countries. This includes Losartan (50 mg tab.), Fenoldopam(i.v. infusion) and Ketanserine (20 mg tab.). These drugs have certain advantages over the commonly used classes of antithpertensive drugs. Gene therapy, though speculative at present, may have therapeutic potential.

Courtesy: Dr. N. K. Singh, Editor In Chief, Indian Journal of Hypertension

NEWER TECHNIQUES IN THE DIAGNOSIS OF TUBERCULOSIS

Diagnosing pulmonary tuberculosis and extra-pulmonary tuber¬culosis is really a chellagne in clinical practise. This has made possible with newer techinques. Methods avalable are under rapid development. These are listed as below :

A. Scrological Test
(i) Antibody Based Assay

(ii) Antigen Based Assay
(iii) Circulating Immune Complexes
B. Chemical Detection of Bio-logical Compounds,
(i) Adenosine Deaminase Assay
(ii) Tuberculostaric Acid
(iii) Serum Mycolic Acid Determination
(iv) Radioactive Bromide Partition Test
(v) Basic Indole Compound Estimation
(vi) Chromatography
C. Genetic Probe
D. Polymerase Chain Reaction.
E. Micobacteriophase typing.
F. Restriction fragement Length Polymorphism.
G. New Blood Culture Techniques.

Ref: Dr. U. R. Kothari, Tuberculosis Updates, Volume 1/5 Dec. '97.

DIABETIC NEUROPATHY

Results from the first randomised trial of recombinant human nerve groth factor (hn GF) in diabetic neuropathy suggest that the therapy is safe and may prevent onset and progression of neuropathy, says lead author Stuart Apfel (Albert Einstein College of Medicine, New York, NY, USA). "Our results are very exciting because right now we only have palliative treatment-nothing to help the nerves become more resistant to injury and function better". But warns Albert, everything will depend on the results of European and US phase HI trials now underway.

Ref: Lancet Vol.352 Sep. 1998

INTENSIVE CARE

Therapeutic use of hyperbaric oxygen
Strong scientific evidence
Main treatment
Decompression sickness
Arterial gas embolism
Severe carbon monoxide poisoning and smoke
inhalation
Adjunctive treatment
Prevention and treatment of osteoradionecrosis Improved skin graft and flap healing
Clostridial myonecrosis
Suggestive scientific evidence
Adjunctive treatment
Refractory osteomyelitis
Radiation induced injury
Acute traumatic ischaemic injury

Prolonged failure of would healing
Exceptional anaemia from blood loss

Ref : R. M. Leach, BMJ, Vol. 317, October 1998