Xmas 1972 Normal blood sugar levels with

Lycanol®

2-benzenesulphonamido-5-methoxy-ethoxy-pyrimidine sodium



Its characteristics in brief:

1. Easy management of the diabetic patient with Lycanol:

Simple and safe in administration and dosage. Readily controllable, because of short biological half-life.

2. Reliable lowering of blood sugar level:

By the substance and its first metabolite, through activation of the physiological secretion of insulin (the β -cells of the islets of Langerhans undergo degranulation, and increase in size and number).

Even daily blood sugar profile.

3. Very well tolerated:

No hepatotoxic or nephrotoxic effect. Because of rapid excretion (about 90% within 24 hours), no risk of cumulation and no tendency to hypoglycaemia. Gastro-intestinal upset and allergic reactions are very rare. No general cross allergy with sulphonylureas. Promotion of glycogen storage in the liver.

4. Pyrimidine compound:

A new chemical class of oral anti-diabetic compound, without anti-bacterial effect.

Presentation:

20 tablets of 0.5 g 500 tablets of 0.5 g

» Bayer « Germany



For further information please apply to:

Messrs. Hayleys Limited 400 Deans Road COLOMBO 10 "...an obese woman deliberately swallowed 70 tablets (350mg) of nitrazepam [Mogadon] with suicidal intent. To her disgust she did not die ...no side-effects or complications were observed."

SUCIDE

In one year there were 1083 suicides with barbiturates—more than 3 every day of the year.²



Mogadon v Barbiturates

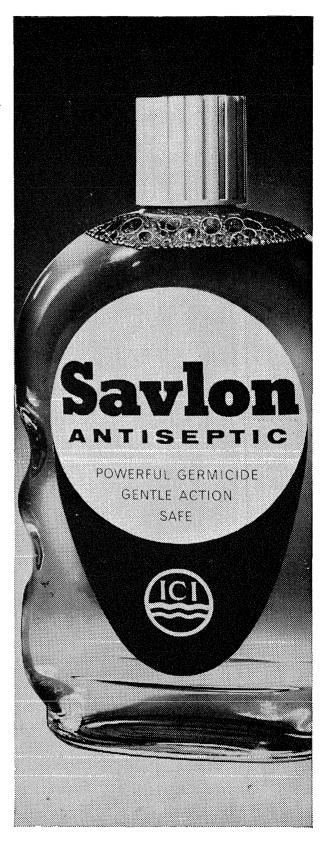
1 Bethune HC, et al, NZ med. J., 1966, **65**, 613 2 Department of Health and Social Security, Reports on public health and medical subjects, No. 124, 1970

Mogadon is a trade mark for pharmaceutical preparations containing nitrazepam

Full information is available on request from: Roche Products Limited, 15 Manchester Square, London W1M 6AP

The Professional Antiseptic

Available only through the retail pharmacist



DECEMBER 1972

chestpiece

JOURNAL OF THE MALTA MEDICAL STUDENTS' ASSOCIATION

Editor: Albert Fenech

Assistant Editor: Andrew Castillo

Cover Design: Thomas Brundin

Editorial		•••	•••	•••	•••	•••	5
Correspondence		•••	•••		•••	•••	6
My notes — The Anatomy of the Child — Michael Camilleri		•••	•••	•••	•••	•••	11
Monitoring the Foetal Heart — The Foetal E.C.G. — Robert Carachi		•••	•••	•••	•••	•••	17
My Clerking in Saginaw — Tonio J. Bugeja		•••	•••		•••	•••	22
Dementia Praecox Temporalis		•••	•••	•••	•••	•••	27
The Radiologist in the modern teaching Hospital — Paul Grech		•••	•••	•••	•••	•••	28
The Annual Dinner		•••	•••	•••		•••	30
The Top Twenty	• •••	•••	•••	•••		•••	31
Tracheotomy — A Student		•••			•••	•••	32
Ulcerative Colitis — R. Farrugia Randon M.D		•••	•••		•••	•••	33
The Shock Lung — Tonio J. Bugeja		•••	•••	•••	•••	•••	37

Malta Medical Students Association

Hon. President

Prof. E.J. Borg Costanzi

Vice-Chancellor and Rector Magnificus

The Royal University of Malta

Hon. Director

Prof. A.P. Camilleri

Prof. of Obstetrics and Gynaecology Dean of the Faculty of Medicine President: Joe DeGiovanni

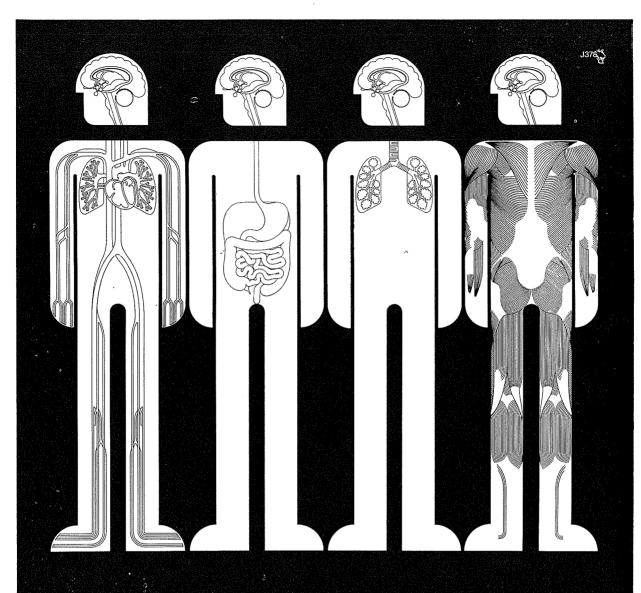
Secretary: Marcello Basile Cherubino

Treasurer: George Debono

Health and Education Officers: Joe Pace, Denis Soler

Exchange Officers: Patrick Pullicino, Fred Zammit Maempel

Entertainments: Philip Carabot
Editor Chestpiece: Albert Fenech



WHEN EXCESSIVE ANXIETY AFFECTS THE BODY NOBRUM

In December 1970 a survey* of 58 published clinical trials of Nobrium showed that of 1,122 cases of 'anxiety with physical symptoms and psychosomatic disorders' 870 (77.6% showed a good to excellent response)

'Full details and references are available upon request

Nobrium is a trade mark for pharmaceutical preparations containing medazepam



Full information is available on request from: Roche Products Limited 15 Manchester Sq London W1M 6AP

Editorial

First of all, a hearty welcome to our newly acquired colleagues who embarked on their Anatomy and Physiology career last October. While wishing them a prosperous and 'unhindered' future, their more experienced brothers assure them of their help at any time, and advise them to persevere, fight for their rights and dig their feet in not to be afraid of the 'Big Bad Wolf' who may try and blow their futures down.

The new 1'st. year final students have now settled in their new surroundings and are certainly reaping its fruit. A certain amount of patience may be needed to convince certain students that the professors actually know more than they do. The initial phase of marching round the hospital with stethoscopes swishing at their necks, using verbose and supposedly medical terminology with the poor patients, and putting on the strained, serious, 'I know it all' expression, is slowly waning.

As for the Ill'rd, year final students, they will soon bid farewell to the good old student days and settle in the responsible, hectic and underpayed jobs they will undertake at hospital for some time. Good luck to you all, chaps, we'll soon have to shed off our jeans and shirts too, but the memories of the wonderful years as students will never be forgotten.

One cannot forget the gross administrative fiasco that stunned everybody concerned after the publication of the Anatomy results last June. The unfortunate trusting students were stabbed in the back by an uncalled for 'Dirty Trick' that for some spoilt their career, and for the others who managed to pass in September, left them bruised and scarred with bitter memories. Our sincerest admiration goes to the student who had the courage and honesty to stand for her rights. The warmest congratulations go to the M.M.S.A., S.R.C., and ex-students for their honest support of this case. The University Council should realise the gross injustice committed and should be just enough to reach an honest and favourable decision on this unsavoury and disgraceful story.

One notes with a certain amount of surprise and sorrow that the Pathology Department is not going to persevere in its 'Continuous Assessment' system — it shouldn't have taken any notice of the unforgettable blunder Anatomy made of it. It should stick to its guns and practice what it so justly and patiently fought for in the interest of the student. The students now in hospital know that they are no longer treated like 'Glorified Kindergarden Three year olds' any longer — and that now they are in the honest, mature and dependent hands of the University hospital staff.

This academic year seems to be a very promising one as regards unity of all the University students. Each Faculty realises the need for their representatives to keep in good touch with each other if their students are to get anywhere. A first move towards this ideal was the conjoined effort of the M.M.S.A. and S.R.C. in a student's plight — and seems to have worked tremendously. Unity is at the basis of any ideal to be fought for — if only everybody would realise this instead of plodding along in their own selfish pathways to success.

Rag Day this year would have been an absolute flop were it not for the personal enterprise and originality of the medical students (mostly 1'st. year finals). These were the only ones to live up to their reputation of being the life and soul of any 'party'. Despite the casualties suffered (mainly a lacerated scalp, ruptured ear drum and bleeding noses) the medics persevered in their search of healthy fun. A unique coincidence turntd out to provide a historical political blunder never to be forgotten. Tomatoes, flour, Loo paper, flat tyres and a raging student were going to explode in a marvellous flasco had not the mistake been realised at the eleventh hour.

The M.M.S.A. Annual Dinner held last November at the Grand Hotel Excelsior turned out to be a roaring success, with the medical students as usual providing the entertainment. It was very encouraging to see the students get on like a house on fire; the outdated snobbishism that older students were superior to the younger ones has been done away with, and one should urgethe M.M.S.A. to proceed with its entertainment programme. The Association will endeavor to introduce a 'Silver Trophy' award this year. The award will be given to the member of the teaching staff who in the student's opinion helped him most during the academic year. The voting shall only be undertaken by the Clinical students, for obvious reasons, and the award will be presented after the June exams each year.

We notice with regret that a most valuable member of our teaching staff, Mr. J. Pace F.R.C.S., has been posted to Gozo thus taking him away from us. Although with a sad heart, we wish him success in his new post, and present him with our warmest thanks and admiration.

Before ending, we urge students to send in articles or anecdotes for the next edition, until then — Merry Christmas and a Prosperous New Year to all our readers.

Correspondence . . .

Dear Sir,

Another scholastic year is with us and the new batch of Freshman Intermediate Students will be admitted into University. Let us hope that the mistakes which were made in the past two years will not crop up again.

Co-ordination between departments comes very far up in my list of suggestions. Owing to a few squabbles between members of the teaching staff, no attempt is being made to streamline the system so as to align teaching programmes and eliminate irrelevant material. A complete revision of the list of lectures and time-tables is required and it is hoped that the individuals concerned will take it in hand to do a good job of it.

In Anatomy, the trend seems to be that of reducing the amount of Descriptive Anatomy taught and covering some aspects of Clinical and Applied Anatomy in its stead. This is the sort of change which is indicative of progress. While the trend is obvious, there is still only one lecture a week in Living Anatomy and even then it is not always concerned with the Clinical, Functional and Applied aspects of the subject. Though questions in Functional Anatomy come up very frequently in Written and Viva Voce exams and though the Anatomy Foreign Assessor told us she was specifically asked to deal with Anatomy from the Functional standpoint, there is not one lecture in the entire programme which deals with function. Students are learning very fast that they have to turn to books like Last and Ellis and drop good old Gray to get the Clinical and Functional details.

A sore point among Intermediate Students is "which is worth studying most — Anatomy or Physiology?" Though both are important basic subjects, Clinicians seem to agree that Physiology is far more useful than the large volume of Anatomical detail studied and then forgotten in a couple of years. In spite of this, there is provision for four times as many hours in Anatomy practical as in Physiology and Biochemistry (Dissection 6, Histology 2 to Physiology 2) and almost twice as many in Anatomy lectures (excluding the extra unofficial ones) as in Physiology and Biochemistry (Anatomy 3, Living Anatomy 2 to Physiology 3). Why not more Physiology and less Anatomy?

Prof. Xuereb's idea of introducing Pathology and Bacteriology in the Intermediate course is an excellent one but it would be even better to start them earlier than at present. It would be a good idea to introduce Pathology and Bacteriology in the last term of the Intermediate course (so as to get Van Leeuwenhoek over and done with in the first term) and then continue running it, complete with assessments, throughout the second year. To make such a project plausible there must be a concomitant scaling down and reorganisation of the Anatomy programme. The absence of an exam, test or assessment (a bubble over terminology?) in Pathology produced a tendency to ignore Pathology and Bacteriology when Anatomy exams were in view. Exams are a necessary and perhaps outdated evil which serve as a first class incentive to study.

Most of the students starting the Intermediate course come from the Junior College where an extremely efficient Tutorial System is in operation. In the Intermediate course there is space only for one tutorial per fortnight in Anatomy and none in Physiology and, even then, there are more than fifteen students attending the Anatomy tutorial (which is often turned into an unofficial lecture if there happens to be a Festa or lecturer's absenteeism during the week). A tutorial should be run for groups of not more than five students and there should be two or three tutorials for every group per week. True, this will cost quite a penny in terms of staff but is not an efficient educational system more useful than Closed-Circuit T.V. or a new Election Microscope? The absence of tutorials in the present system is causing disruption of the Dissection sessions which are being turned into impromptu tutorials.

Some method should be found to keep Intermediate students informed about what is happening at higher echelons. This would obviate wastage of time in running up to or down from Tal-Qroqq for non-existent lectures or practicals cancelled at the eleventh hour. It is a pity that two huge notice-boards should carry time-tables and outdated lecture lists only.

Last year, an unholy mix-up occurred over time-tables due to lack of prior planning. Though the overall time-table looked very polished, a breakdown of the schedule showed that apart from the distribution being unfair and unbalanced, there where far too many gaps and an unnecessary number of empty mornings (often with only one lecture) and full afternoons. The library is not the ideal place to study in and gaps in time-tables should be reduced to a minimum and afternoons should be left as uncluttered as possible so as to give students time to study in peace.

Lastly. a hand-clap should go to Prof. Xuereb et al for trying to do something useful in the summer months. Though some of my colleagues may not agree, more Pathology summer sessions should be started for Intermediate students in the future — on a purely volunteer basis, of course — so that they may be more readily integratable into the Final course.

These are meant to be suggestions not criticisms (to whom it may concern, please note) and I hope that rather than falling on deaf ears somebody will have the guts to face the truth.

Yours sincerely,
APATHETIC STUDENT WHOSE
TOES ARE OUT OF THE FIRE

Dear Sir.

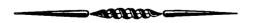
Although by now the sad state of affairs in the Anatomy Dept. is known to everyone (and yet no one in the high and mighty places has the courage to do anything about it) I feel it my duty to point out the outrageous and underhanded mishaps that have occured to the detriment of certain students who five years ago embarked on the Medical career in the honest hope of one day becoming Medical Doctors and fulfilling their life's vocation. In the beginning of our Anatomy and Physiology 'adventures', we were told 'downstairs' that we would be worked very hard (too true) and that we would be assessed throughout our two years because (I quote) "one cannot judge a student's knowledge simply by a three hour paper,..." All of us greeted this remark with a sense of awe, but we were pleased that such a step was being taken for our benefit (or so we thought!) I shall not dwell on the goings on during term time, but the next important issue arrived in January '72 when we were informed that an External Examiner would be coming over to give us an independent 'Assessment' in April, and (I quote) "... I must emphasise the importance of this assessment — it will have a heavy bearing on your finals together with your past performance..."

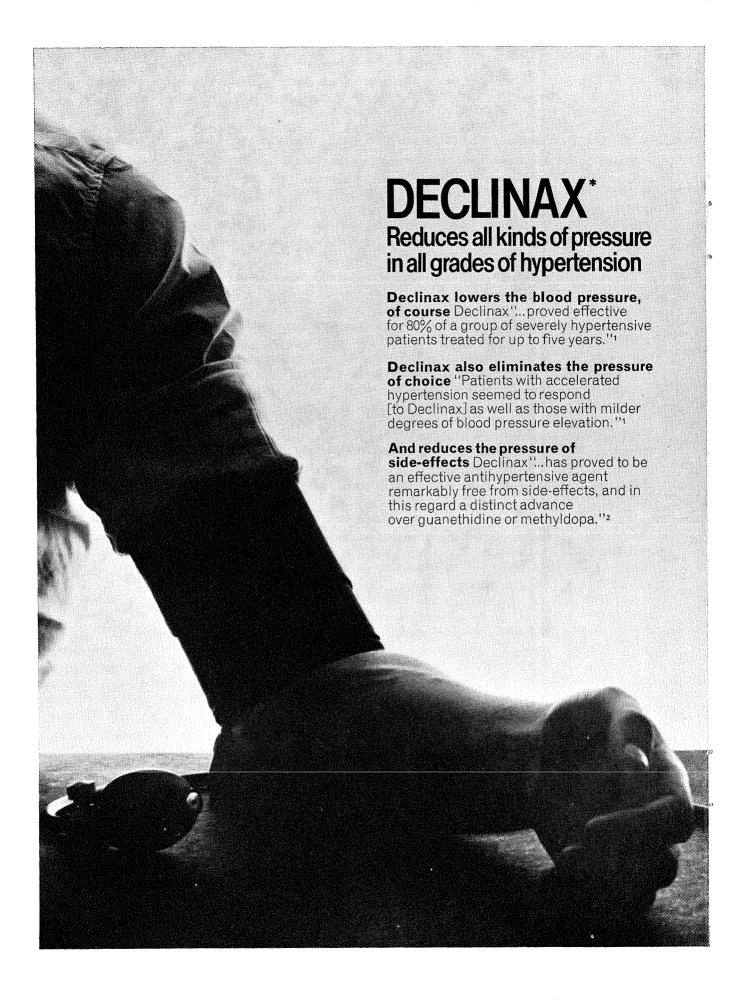
So all of us set to work polishing up our work for the great day. The great day came and went and out of forty four students only five failed (pretty good considering). So most of us took a sigh of relief being in the delusion that our well earned results from a marvellous (and unprejudiced) examiner would come in handy in the June finals. Come June and July and the biggest shock of all — 12 —TWELVE!!!— students were failed, the majority of those who passed had a D, a few had a C, and about three had a B. No A's. Can anyone in the right mind even think that after two years of swotting, not knowing what's behind the corner, not one of us had the knowledge for an A? Worst of all, that of the five who failed the independent assessment two would pass (congratulations) but that people who passed the assessment (and some with very good marks) should FAIL? Where were all the promises of Continuous Assessment? Do you think students are there to be played with and deceived? Don't people realise that they are dealing with people's careers — a lifetime's vocation gone up in a smouldering cloud of empty promises? Look at the Physiology results. Throughout the two years we were told what to expect — Physiology. We were told not to try and teach the staff Physiology, but rather grasp the basic stuff which is more useful than a dirty bundle of delicate detail which one forgets after a time anyway. We were told that our Past performance would be taken into consideration towards the end, and so it was. Look at the Physiology results SIX A's and I failure.

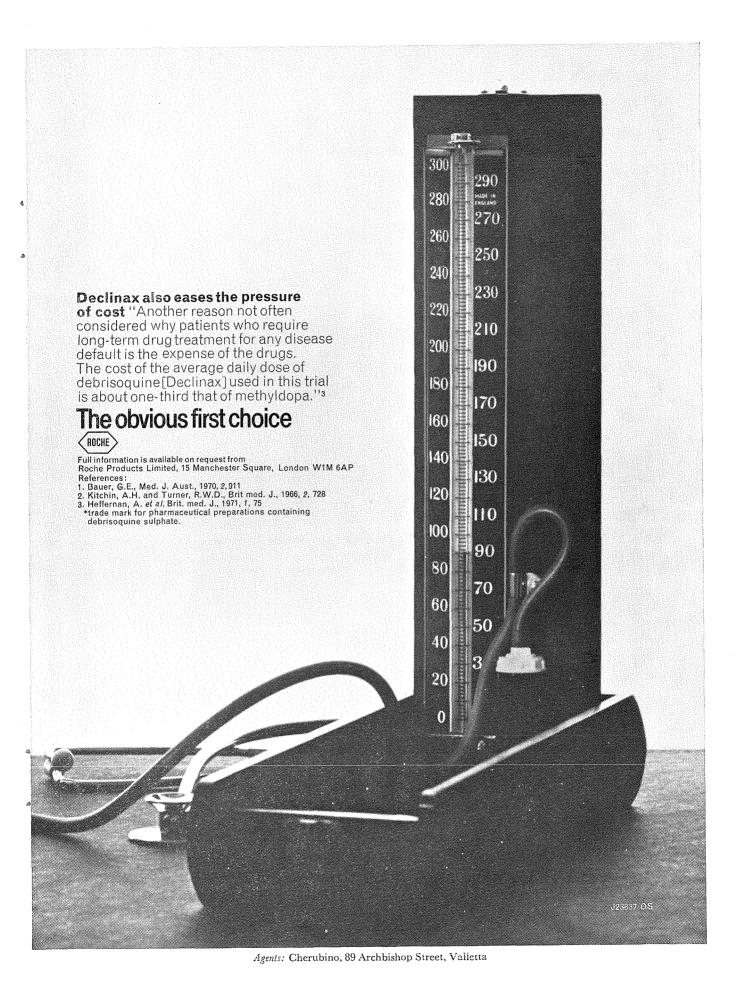
All us students are sorry of the way we put Physiology aside most of the time to concentrate on our Anatomy. Surely, there is something radically wrong somewhere — anyone can see. To add insult to injury, after the results in September we have another unprecedented 'surprise'. Two students who did well throughout the two years, any one of us will vouch for that, failed, and two students who did persistently badly throughout the two years (failing all exams except the previous resit and one test) passed. I'm not against these two passing, far from it, but that they should pass and that the others should fail! Why was the external assessor brought in April? My wary mind ponders maybe it was to get her away from the finals. I must express my sympathy to the Pathology Department for after so much hard work to introduce something really and honestly beneficial for us students, after putting so much effort into it, the whole idea should be blown by an unprecedented and unjust stab in the back. Might I ask the Pathology Department to re-introduce the continuous assessment? Might I implore somebody to take a more active interest in us students? Perhaps this letter will be read by many, perhaps many will utter a sympathetic, or maybe angry, groan. Perhaps somebody will have a fit and raise hell to try and suppress the freedom of expression of us students (as has been tried before).

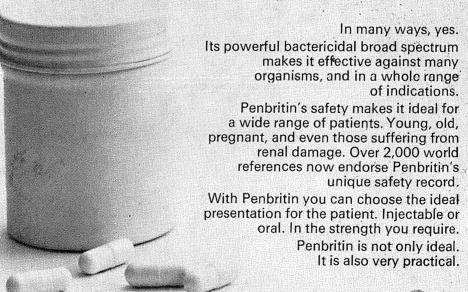
I thank you sir, for giving me this chance of expression, but maybe someone, somewhere, sometime will wake up and do something, something genuine and honest for the people who want to make a career out of Medicine.

Yours Faithfully RESIGNED!









Penbritin-the ideal antibiotic in so many ways







Penbritin (ampicillin) is a product of research at

Beecham Research Laboratories Brentford, England. The originators of the New Penicillins

Distributors: Alfred Gera & Sons Ltd., 13/11 Vincenti Buildings, Strait Street, Valletta. Further information is available on request.



My notes - The Anatomy of the Child

Michael Camilleri

Until delivery, the foetus lives a parasitic existence. The placenta "breaths, digests and excretes" for the foetus and permits the vital functions of respiration and digestion to remain latent.

At the moment of delivery, the infant is launched on an independent existence and assumes these vital functions or dies. This necessitates profound physiological changes in the infant, often based on anatomical alterations, immediately following the traumatic experience of birth.

Changes in Respiratory System at Bihth

The initiation of respiration is probably induced by a stimulation of the Respiratory centre during labour by the relative anoxia in the placental circulation due to uterine contractions.

After birth the body of the baby can uncoil so that the spine is straightened and the shape of the chest and position of the diaphragm facilitates repiration.

The fall in body surface temperature after delivery probably also serves as a stimulus to respiration.

With successive respiratory movements the thoracic cage expands and creates a negative intrapleural pressure. Air in the bronchial tree is at atmospheric pressure and so the foetal lung expands by entry of air into the elveoli, overcoming the surface tension between the alveolar walls.

Changes in Foetal circulation at birth

- 1) The umbilical cord dessicates, and the left umbilical vein closes by aseptic thrombosis. Blood in the ductus venosus clots, and the duct atrophies and disappears. These two venous channels persist later on as the ligamentum teres and ligamentum venosum respectively. The umbilical arteries show retrograde closure.
- 2) There is a drop in pressure in the right side of the heart due to expansion of the lungs and opening of pulmonary circulation. So there is overlap and adherence of flanges of cardiac muscle closing the Foramen ovale in the interatrial septum, and persisting as a shallow Fossa Ovalis. This closure results in separation of systemic and pulmonary circulation.
- 3) The Ductus Arteriosus serves in the foetus to short circuit blood from entering the airless lungs. It links the left branch of pulmonary trunk to the aorta distal to the origin of the arteries going to supply the head and upper limbs. It conveys chiefly deoxygenated blood that is coming from the head and that enters the stream of oxygenated blood conveyed into right atrium by the ductus venosus and inferior vena cava. This mixture is thought to be prevented by the Intervenous tubercle of Lower which eventually goes to form the semilunar valve of the inferior vena cava. The ductus arteriosus is usually anatomically obliterated by end-arteries after one or two months.

General Features of the Newborn.

In the Newborn, some organs and structures are well developed and even of full adult size e.g. internal ear; while others differ in size or have yet to develop e.g. cerebrospinal tracts to be medullated; teeth to erupt; secondary sex characters to appear.

Relative to the adult, the newborn is much more fully developed at its head end than at its tail end. The head and shoulders are large; the abdomen, buttocks and lower limbs small. The edentate jaws and shallow maxillae produce a face that is short vertically and the cheeks bulge forwards to accomodate their tissues. This is lost at seven years of age by the eruption of the permanent teeth and growth of the maxillary air sinus. The newborn has no visibe neck, and must elongate before flexion, extension and rotation are possible. The abdomen is not prominent. The 'Pot - Belly' is due to the large liver andsmall pelvis. The Pelvic organs lie in the abdominal cavity. Later these pelvic organs and many coils of intestine sink into the pelvis and the rate of growth of the abdominal wall out-paces that of the liver.

The limbs are disproportionately developed.

- a) The upper limb is well-developed but movements are ill-controlled and ataxic. Fingers can be flexed and hyperextended, and there is a very powerful grasping reflex. The hand takes several months to become the chief tactile organ, until which time the lips are used for feeling, and the hand is merely prehensile, carrying things to the mouth for examination.
- b) The buttocks and the short legs are ill-developed.

Features of the newborn skull and its growth.

- The cranium is very large relative to the skeleton of face. Due to this underdevelopment of the face, the foetal skull is round.
- 2. In the foetal skull, the vertical diameter of the orbit is equal to the vertical height of the maxilla and mandible, whereas in the adult skull, that of the orbit is equal to a third of the height of the maxilla and mandible. This is due to (a) growth of the maxillary sinus, and (b) growth of alveolar bone around the permanent teeth.
- 3. The bones of the skull vault and of the face are developed by ossification in membrane wheras those of the base of the skull develop by endochondral ossification. Most of the separate bones of the skull and face are ossified by the time of birth but are mobile on each other, mostly in the vault where the overlap permits moulding of the cranium during parturition.
- 4. The bones of the vault are separated by the linear attachments of fibrous tissue and the edges of bones are not serrated. The fibrous tissue is continuous with the pericranium outside the bone, and the endocranium (outer layer of dura mater) on the inside. At the

corners the bones of the vault are separated by large areas of fibrous tissue called Fontanelles:—

- a) Anterior fontanelle, diamond shaped, closes at about 18 months.
- b) Posterior fontanelle, triangular, closes 16 months.
- c) Anterolateral fontanelle at Pterion closes by the end of the first year as does the
- d) Posterolateral Fontanelle, at Asterion. Sutural bones may develop at any fontanelle.
- 5. Other features of the newborn skull are:
 - a) Thinness of vault bones.
 - b) Prominence of frontal and parietal eminences.
 - c) Frontal suture (which persists up to sixth year).
 - d) Occipital bone is in 4 parts joined by cartilage to the sphenoid bone.
 - e) Sphenoid bone is in 3 parts.
 - f) Temporal bone is in 4 parts.
 - g) There is no mastoid process. Hence the danger of damaging the facial nerve as it emerges from the stylomastoid foramen during forceps delivery.
 - h) Stylomastoid foramen, tympanic ring and membrane, and mastoid antrum are close to the lateral surface of the skull.
 - i) The Mandible is in two halves; its angle is very obtuse; the coronoid process is higher than the head of the condyloid process; the mental foramen lies at the lower border of mandible.
 - j) The alveolar parts of the mandible and the maxilla are undeveloped.
 - k) The vertical height of maxilla, ethmoid and palatine bones is much smaller than in adult.
 - I) All the paranasal air sinuses except frontal sinus are present but rudimentary.
- 6. Growth of the vault of the skull occurs by:
 - a) Appositional growth—that is deposition of bone at suture lines so that separate bones come to interdigitate with each other.
 - b) Interstitial or growth in thickness (i.e. addition by osteoblasts to the outside) accompanied regular throughout by resorption on the inside, causing moulding of each bone, by osteoclasts. In the vault, only compact bone is present at birth. With subsequent growth, the interior of the bones becomes excavated into cancellous bone (Diplöe) and red bone maddow fills the interstices therein. Growth of the vault is most rapid in the 1st year; decreases in rate up to the seventh year, and further decreases until the 16th year when growth ceases. Several parts of the skull have adult size by 7 years:- orbits, body of sphenoid, posterior part of temporal bone and foramen magnum. There is some growth of jaws during eruption of decidious (6th month to 2nd year) and permanent (6th to 12 year) teeth. During 7th year and puberty the paranasal air sinuses (especially frontal and maxillary) grow considerably, increasing size of the face and frontal region of the skull.
- 7. Temporal bone and ear.

The Temporal bone develops in four parts; squamous and tympanic which ossify in membrane and petroma-

stoid and styloid process which ossify in cartilage. The Tympanic part at birth is a C-shaped tympanic ring applied to the under surface of the petrous and squamous parts. It encloses the tympanic membrane which is slotted into it.

The external Auditory meatus of the newborn is wholly cartilaginous. The Tympanic membrane is of adult size but lies more obliquely.

The tympanic ring elongates by growth from the lateral rim of its whole circumference, thus forming the bony part of the external auditory meatus and pushing the cartilaginous part larerally.

Growth of bone from the C-shape tympanic ring is at first more rapid anteriorly and posteriorly than inferiorly. The growing anterior and posterior flanges of bone join and enclose an irregular foramen of Huschke which persists up to the 5th year but becomes obliterated by subsequent growth of bone. The petromastoid part contains internal ear and tympanic antrum, all of adult size at birth. At birth the tegmen tympani roofing the middle ear is not fully grown, and it does not cover the geniculate ganglion of the facial nerve, which is thus in contact with the dura of the middle cranial fossa. Later the tegmen tympani of the petrous temporal bone grows across the geniculate ganglion and curves down to form the lateral wall of the canal for tensor tympani. Its growing edge "peeps out" from the medial part of the squamo-tympanic fissure dividing it into: petrosquamous and petrotympanic fissures. Thus in the newborn, the chordatympani nerve emerges from the skull in the squamotympanic fissure, but later emerges in the petrotympanic fissure. birth, the mastoid antrum is covered by 3mm of petrous temporal bone; at 12 years of age this covering has thickened to 15mm of petrous temporal bone. At birth the bony part of the external auditory meatus is the tympanic ring. In the adult the external auditory meatus is $\frac{2}{3}$ bony and $\frac{1}{3}$ carilaginous.

Classified changes of the skull with age.

In the 6th month (lower and, soon after upper) central incisor (deciduous) tooth.

In the 8 — 9 month lateral incisor (deciduous) tooth. In the 1st year:

- (a) Anterolateral and posterolateral fontanetelles disappear.
- (b) During 1st year, most rapid growth of skull vault.
- (c) 1st molar (deciduous) tooth eruption.
- (d) 4 parts of temporal bone have united.
- (e) 2 halves of mandible have united.
- In the 15th month: Canine (deciduous) tooth erution.
- In the 16th month: Posterior Fontanelle disappears.
- In the 18th month: Anterior Fontanelle disappears.
- In the 20th month: 2nd molar (deciduous) tooth eruption. In the 2nd year:
- (a) Mastoid process develops with growth of the sternomastoid muscle as the child starts to move the head, and the aircells grow into it from the mastoid antrum. The mastoid process is this aerated during 2nd year.





Intravenous Valium* Roche a remarkable advance in anaesthetic technique

The soporific effect of Intravenous Valium Roche, accompanied usually by amnesia, makes it ideal for use as sedative cover in patients undergoing unpleasant medical and surgical procedures including: Cardioversion; Cardiac catheterization; Endoscopy; Radiological procedures; Cataract removal; Reduction of fractures; Dental surgery; Obstetrics.

Intravenous Valium Roche is now available in 20mg in 4ml ampoules for greater economy and convenience.

*trade mark for pharmaceutical preparations containing diazepam



Full information is available on request from: Roche Products Limited, 15 Manchester Square, London W1M 6AP.

J95403

(b) Frontal sinus (paranasal) appears but is still rudimentary.

In the 3rd year: squaomus part of occipital and condylar parts of occipital bone have united.

In the 5th year:

- (a) Condylar parts of occipital and basilar parts of occipital bone have united and,
- (b) the foramen of Huschke disappears.

In the 6th year:

- (a) 1st molar (permanent) tooth eruption.
- (b) Frontal (metopic) suture almost disappeared. In the 7th year:
- (a) Up to 7th year growth of vault of skull is quite rapid.
- (b) Central incisor (permanent) tooth eruption.
- (c) Growth of paranasal air-sinuses.

In the 8th year: lateral incisor (permanent) eruption.

In the 9th year: first premolar.

In the 10th year: second premolar.

In the 11th year: Canines erupt.

In the 12th year:

- (a) 2nd "factory" molar.
- (b) After ossification of petrosquamous fissure, new bone from squamous part flows down over the developing mastoid process, and at a rate of 1mm per year buries mastoid antrum more deeply. This growth stops at 12 years, with antrum 15mm. from the surface. At puberty there is rapid growth of paranasal air-sinuses.

At the 16th year; growth of skull vault ceases after being very slow from 8th to 16th years.

25th year: Complete fusion of sphenoid body with basilar part of occipital bone.

Between 20th and 30th years saggital suture closes Between 25th and 30th years coronal suture closes. Between 25th and 40th years Lambdoid suture closes. In late life:

- (a) The bone of skull become thinner and lighter.
- (b) Enlargement of sinuses.
- (c) As teeth fall out, the alveolar part of mandible and maxilla are absorbed.
- (d) Sphenoidal air-sinus may grow into basilar part of occipital bone.

Changes in the Mandible

- In the foetus, the mental foramen lies at the lower border of the body of the mandible. With tooth eruption, it lies midway between upper and lower border and as teeth fall out and the alveolar margin of the mandible degenerates, the mental foramen comes to lie at the uppr border of the body of the mandible.
- 2. (a) The Angle of mandible is very obtuse in the newborn and the head of the condyloid process lies in line with the upper border of the body of the mandible with the coronoid process at a higher level.
 - (b) After eruption of teeth the angle is nearly a Right Angle and the well developed condyle lies higher than the coronoid process.

(c) In the edentate mandible, the angle is slightly more obtuse, but gradual moulding of the neck ultimately depresses the condyle to a lower level than the coronoid process.

The Face

The maxilla at birth is shallow and full of developing teeth. Eruption of the deciduous teeth allows room for excavation of the antrum beneath the orbital plate but the maxilla grows slowly until the permanent teeth begin to erupt at 6 years, when there is a rapid increase in the size of the antrum, and growth of the alveolar bone increasing the depth of maxilla.

The hard palate grows back to accomodate the extra teeth but the forward growth of the base of the skull at the occipital sutures outstrips it and prevents the hard palate form approaching the Cervical vertebrae. Thus the nasopharyngeal isthmus is kept open and in fact, enlarges. Growth of the base of skull can continue at the basisphenoidal suture (which fuses at 25 years). Growth of the face occurs by growth of all face bones. Growth at the sutures forces the face downwards and forwards away from the base of the skull.

There is overall growth of the mandible by a process of moulding with harmonious deposition of new bone and resorption of old bone. An "epiphysis" at the neck of the mandible allows ready moulding of the condyle for accomodation with the changing size and direction of the articular cartilage and temporal bone.

The tongue is relatively large at birth and has a blunt tip that cannot be extruded. The newborn is tongue-tied and only slowly does the tip of the tongue elongate. The hard palate is high and the orifice of the Eustachian tube (tubal Elevation) lies at the same level. As the nasal septum grows in height, the palate descends and leaves the tubal orifice above it in the nasopharynx.

As with lymphoid tissues elsewhere in the body, the palatine and nasopharyngeal tonsils (adenoids) tend to be exuberant in the child.

The Neck

The newborn has no visible neck. The left Innominate vein crosses the trachea so high in superior mediastinum that it may encroach above the sternal notch into the neck, especially if it is engorged and the head extended. So care is taken in performing tracheostomy on infants.

The shortness of the neck of the newborn involves a higher position of the viscera. The Epiglottis and larynx lie nearer to base of tongue and their descent is slow. They reach adult levels after the 7th year. The larynx and trachea are of small bore at birth. The vocal cords are 5mm long by the end of the 1st year. Laryngitis and tracheitis in infancy thus carry far more risk of respiratory obstruction than later. At puberty the male larynx inreases in size and the vocal cord elongate from 8 to 16mm causing "breaking of the voice". Castration or failure of testicular hormone prevents this change.

The Thorax

In the child, the rib cage is more Barrel - Shaped. The large thymus extends from the lower part of the neck through the superior and anterior mediastina. The thymus atrophies at puberty. The ribs lie more nearly horizontal so that the cage is set at a higher level than in the adult. Hence the shortness of the neck. Due to the high thorax, there is a higher diaphragm and hence increase in abdominal volume. Descent of the thoracic cage as the ribs take up their adult obliquity is the chief cause of the elongation of neck.

The Abdomen

- 1. At birth the liver is twice its relative adult size and its inferior border is palpable below the costal margin.
- 2. The suprarenal is enormous at birth, nearly as large as the kidney itself.
- The kidneys are always highly lobulated at birth and grooves on the surface of the adult organ frequently persist as a visible sign of the original foetal lobulation.
- 4. The caecum is conical and the appendix arises from its apex in the foetus and this is still present at birth. During infancy and early childhood, the lateral wall of the caecum balloons out and the base of the appendix comes to lie posteromedially.
- 5. The appendiceal mucosa is packed with massed lymphoid follicles in the child. These become more sparse in later life.
- 6. The pelvic cavity is small at birth and the fundus of bladder lies above the symphysis pubis.

The Upper Limb

1. At birth, the upper limb is more fully developed than the lower limb.

- 2. Grasping reflex of the hand is very pronounced.
- 3. Growth in length occurs more at the shoulder and wrist than at the elbow. Thus, amputation through humerus in the young requires a very generous flap of soft tissue lest the growing bone should later protrude through the stump.

The Lower Limb

At birth, it is poorly developed and is flexed for the first 6 months. Later it grows stronger and is extended and medially rotated.

The inverted foot of the newborn gradually becomes everted.

Growth of lower limb proceeds more rapidly at the knees than at the hip and ankle. It is not symmetrical across the lower Epiphysis of the femur and "Knock-Knee" (genu valgum) is normal in the child.

Ther Vertebral Column.

Until birth, the column is C — Shaped. The cervical curve opens up into a ventral convexity when the infant holds up its head and the lumbar curve opens up into a ventral convexity when the infant walks. The extension of the hip that accompanies walking tilts the pelvis forwards, so that the axis of the pelvic cavity is no longer in line with that of abdominal cavity. This forward tilt of pelvis necessitates a high degree of forward curvature (lordosis) of the spine in order to keep the body vertical in the standing position. The spinal cord extends to the level of S3 at birth and does not rise to the level of lower border of L3 until adult years.

THE MEDICAL DEFENCE UNION

Essay Competitions for Medical and Dental Students — 1972

The entries for the 1972 Medical Defence Union's essay competitions for Medical and for Dental Students have now been assessed. The sealed envelopes containing the entry forms were opened at the Medical Defence Union's offices on 25th July in the presence of a number of medical and dental students to reveal the names of the prize-winners which were as follows:

Medical Essay

First Prize of £M 100

Second Prize of £M 50

Dental Essay

First Prize of £M 100

Second Prize of £M 50

"The Relation of the Doctor to the Government"

Mr. Victor Loughlin of The Queen's University, Belfast

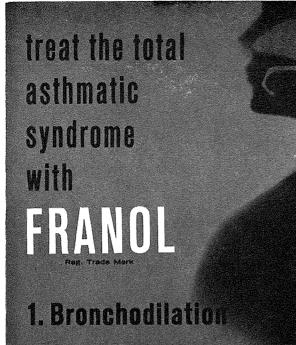
Mr. Roger N. Bloor of the University of Liverpool

"The Ethical Practice of Dentistry"

Mr. John F.R. Sweet of the University of Wales at Cardiff

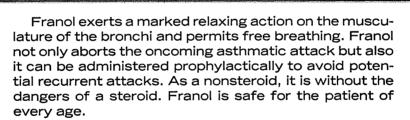
Mr. Arun K. Gadgil of King's College Hospital Dental School, London.

London, July 1972.



2. Spasmolytic action

3. Sedative action



Each Franol tablet contains:

Ephedrine hydrochloride B.P. 11 mg. Phenobarbitone B.P. 8 mg.

FRANUL developed through research by WINTHROP

pharmaceuticals of merit for the physician W



Monitoring the Foetal Heart -

Robert Carachi

The Foetal E.C.G.

The first serious attempts made at recording the foetal heart were in the year 1906. However the results were poor and the matter was dropped for many years. This was due mainly to the small impulse received but also because of the gross amount of interference which made the recordings very difficult to read let alone to decipher and deduce anything from them.

Later, a group at Yale university was achieving considerable success by picking up the abdominal signal of the foetal heart, and feeding the impulses received (both maternal and foetal) into a computer system which amplified the foetal impulse periodically at regular intervals. This was a considerable advance in recording, but it had its limitations. Whenever the foetal heart was irregular the amplification set periodically was out of step with the foetal impulse and failed miserably.

In the last 25 years there has been this tremendous breakthrough in electronics, and the recording of the foetal E.C.G. has come into its own. A whole new field of specialisation has been opened. This is just one of many examples where the progress in medical investigation has had to wait for the advancement of electronical engineering.

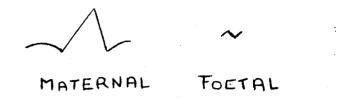
The consultant at the Royal Free Hospital these past 5 years has been actively engaged in this field, carrying out foetal E.C.G. investigations routinely on those who warrant them. The unit has been detecting abnormalities in the foetal heart and the foetus as well as in its immediate environment.

In an attempt to get better recordings rectal and vaginal electrodes have been tried, but were soon given up because of poor readings, and to this day the abdominal electrocardiography where here one places the electrodes on the maternal abdomen, has achieved the best results. The latest type of electrode on the market is one applied to the foetal head by means of a small clip after rupturing of the membranes. It is used for monitoring the foetus during labour.

The main problem that one meets with in recording the foetal heart impulse is the smallness of the impulse recorded from the electrode on the maternal abdomen. Hence the need to amplify the small signal by means of an amplification system utilizing a pre-amplifier.

The frequency response needed is much higher than the normal E.C.G. It is in the region of the range of frequencies used in myographs and electroencephalographs, since it is a known principle that the smaller the organism the higher the frequency required.

Just to compare the strength of the maternal and the foetal E.C.G. A frequency of 50 cycles per second is sufficient to record an adult E.C.G. while a frequency



of at least 200 cycles per second is needed for an adequate recording of the foetal heart.

Another problem encountered is that unlike the normal chest leads which are fixed in a normal E.C.G., the fixed abdominal electrodes in fact are not fixed at all relative to the foetus since it is constantly on the move and changing positions. So one must be able to make allowances for these variations of normal.

Technique

The apparatus essentially consists of a recorder and an amplifier the size of which is slightly larger than the standard E.C.G. recorder. There are knobs to vary the speed at two rates and also to vary the frequency. The main idea is to balance the circuit perfectly in order to minimise and if possible to eliminate the interference caused by the muscles of the maternal wall besides other electronic noise. Each electrode must be screened individually and they must be perfectly applied to balance the circuit.

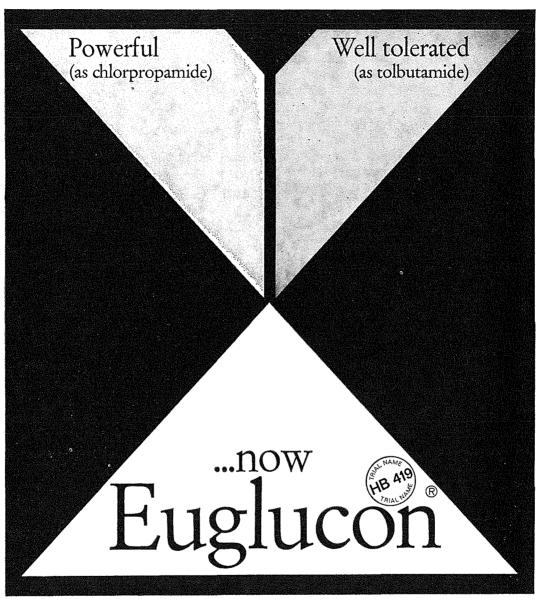
The two types of electrodes in current use are the suction type used for antenatal routine recordings and the permanent plastic type used for monitoring the foetal heart during difficult labours.

Uses of the foetal E.C.G.

- The maturity of the foetus if taken on 2 successive occasions can be pinpointed to +or—7 days.
- The intrauterine state of the foetus can be assessed with accuracy, this method being more sensitive than relying on irregularities of the foetal heart to develop or alter the rate.
- Placental uterine function can be assessed to a certain degree of precision.
- Foetal abnormalities can be detected such as hydrocephalus, hiatus hernia, ectopia cordis, congenital defects of the heart.
- Definitive diagnosis of twins can also be made.
- The diagnosis of normal and abnormal presentations.
- Diagnosis of intra uterine death.

However the major use at present is in the assessment of the maturity of the foetus.

The best of both worlds



5 mg oral antidiabetic agent

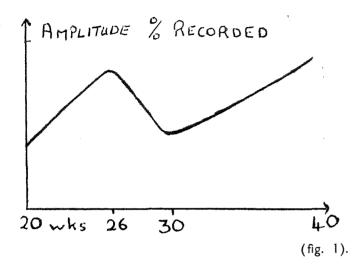
N-4-[2-(5-chloro-2-methoxybenzamido) -ethyl]-phenyl-sulfonyl-N'-cyclohexylurea (glibenclamide)

Presentation: packs containing 30 and 100 oblong tablets.



AGENTS: VIVIAN COMMERCIAL CORPORATION LTD.

At different stages the foetal E.C.G. shows variations. Starting from 20 weeks one can be certain of the recordings received. Between 22 and 26 weeks one records a poor impulse. Between 28 and 32 weeks in a good percentage the impulse falls, while this impulse now rises steadily till term. There is good conduction and a high amplitude impulse is recorded.

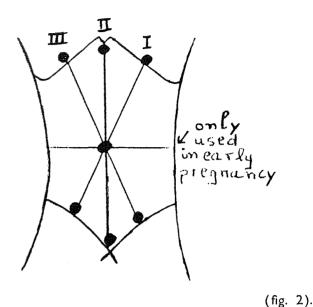


The foetal E.C.G. also reflects the melieur exterior of the foetal environment. An interesting observation is the recording of the E.C.G. during the process of salting out in a foetocide. 60 mls of the liquor is drained and 70 mls of 20% saline are injected in. In such cases it was noticed that the voltage signal doubled initially before it died down due to the good conduction of the sodium chloride. Hence one may infer from this that as the composition of the liquor changes in its ionic content so one sees the variations in the impulses recorded. This may explain the dip and then the rise in the graph above in part.

In a case of hydramnios the signal is dispersed there being so much liquor.

The foetal E.C.G. is mainly a ventriculogram and from it one can read

- The voltage.
- The Q-S time where the presence of any slurring denotes foetal distress and one can also determine the mass of the heart.
- S wave which is seen in early pregnancy whereas the Q waves are not seen in early pregnancy.
 Electrode sites used on the maternal abdomen.



Discussion

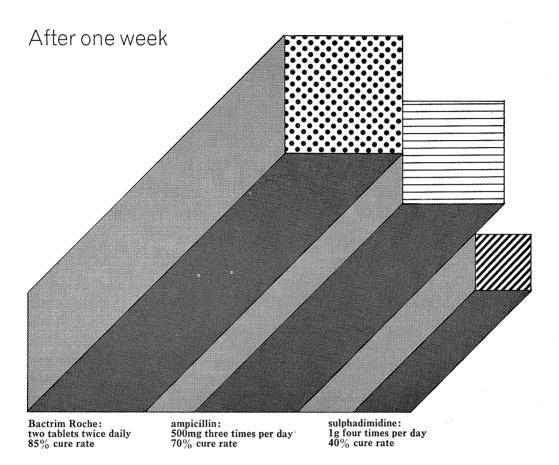
Foetal electrocardiography is a well established sophisticated diagnostic tool with which one can detect foetal abnormalities and distress as also to diagnose hostile environments, where decisions for the precise time for intervention may be vital.

However the main use for it at present is its ability to date a pregnancy to within a week accurately.

This tool undoubtedly removes many hazards of radiography for diagnosis of many of the conditions that the foetal electrocardiograph can detect so innocuously. Besides it would undoubtedly relieve the overburdened staff of any radiological unit.

An elderly Jewish shopkeeper was ill and his family, who thought he was dying, had gathered around his bedside. Suddenly the old man roused up and said, 'Is Rachel here?' 'Yes, I am here,' said his wife. 'Is Abie here?' went on the old man. 'Yes, I vos here,' said his son. 'Is Sarah here?' he again asked. 'Yes, I am here,' said his daugher. The old man sat bolt upright in bed and yelled, 'Then who the hell is looking after the shop?'

Urgent requirement: cure without relapse in bacterial infection

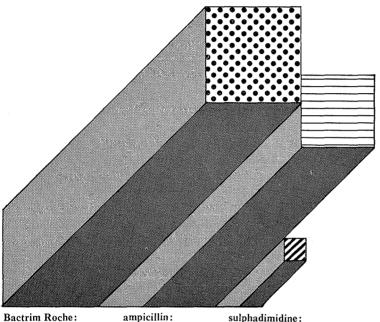


When bacterial infection presents, the practical requirement is to get the patient well again as quickly as possible. It is also important to make every effort to avoid relapse. For these reasons Bactrim Roche is the prime antibacterial: it is indicated for immediate use in the treatment of bacterial infections – especially when the urinary and lower respiratory tracts are involved.

Reeves et al treated 106 patients with urinary tract infections. In a comparison with two other treatments patients were given seven-day courses of trimethoprim/sulphamethoxazole, the active constituents of Bactrim Roche, ampicillin or sulphadimidine. The authors regard trimethoprim/sulphamethoxazole as a 'valuable addition to the drugs available for the treatment of urinary infection . . . 's and comment that 'good results with simple therapy (two tablets twice daily) were obtained overall and we also obtained highly satisfactory results in individual cases.'8

Bactrim Roche*: broad-spectrum antibacterial that is more likely to cure than ampicillin or tetracyclines1-7

Follow-up after four to five weeks



- 67% cure rate
- ampicillin: 52% cure rate
- sulphadimidine: 15% cure rate
- 1. General Practitioner Research Group, Practitioner, 1969, 203, 817.
- 2. Leading Article, Brit. med. J., 1969, 1, 525.
- 3. Howells, C. H. L. and Tyler, L.E., Brit. J. clin. Pract., 1971, 25, 77.
- 4. Hughes, D. T. D., Postgrad. med. J., 1969,
- 5. Lal, S. and Bhalla, K. K., ibid, 91.
- 6. Pines, A. et al, ibid, 89.
- 7. Solovey, O., Dia. med. urug., 1968, 35, 122.
- 8. Reeves, D. S. et al, Brit. med. J., 1969, 1,541.

*trade mark for Roche pharmaceuticals containing trimethoprim and sulphamethoxazole.

Full information is available on request from



Roche Products Limited, 15 Manchester Square, London WIM 6AP.

My Clerking in Saginaw

Tonio J. Bugeja

Clerking for these two months in Saginaw meant the run of three fully equipped, very modern hospitals namely St. Luke's, Saginaw General and St. Mary's Hospital respectively. All three come under the education corporation by the name of Saginaw Cooperative Hospitals which under the director of medical education, Dr. Peter Ways accepted my application as one of fifteen externs clerking there for the summer.

7.00 — 7.30 a.m. — Four haemodialysis patients to be hooked onto the kidney machine.

The daily schedule for me was roughly the following:

8.00 — 9.15 a.m. — Conference: medical, paediatric, coronary care or surgical depending on the day of the week. In addition the journal club and audio digest were held on two other days of the 6 day week.

9.15 — 11.00 a.m. — Medical Ward Rounds in the 3 hospitals.

11.00 — 1.00 p.m. — E.N.T. conference on Tuesdays.

Clinico - pathological conference once a forthnight; otherwise work on the wards like new admissions and procedures such as paracentesis.

1.30 — 2.00 p.m. — Four haemodialysis patients to be taken off machine.

2.00 — 6.00 p.m. — Surgical procedures and operations.

7.00 — 9.30 p.m. — Surgical Ward Rounds in the 3 hospitals.

While these time arrangements were adhered to as much as possible, changes were effected when practical, after informing the doctors involved. Emphasis was laid on procedures which are not available in Malta or pathology of rare incidence. Thus, operations such as total hip replacement and abdominal aortic resection and grafting were done during morning sessions. In such instances one attended these operation sessions rather than the usual conferences and wards. On the other hand operations like T.U.R. of the prostate, laminectomies and vasectomies were done in afternoon sessions. In this way it was arranged that rather than clerk for a month in Medicine and a month in Surgery, I clerk in Medicine (7.00 am — 2 pm) and in Surgery (2.00 — 9.30 pm) all along.

It was my duty on both types of wards to do physical examinations after taking a history; the patients were followed up regularly and special investigations and treatment ordered under supervision. Minor procedures like paracentesis or the drawing of arterial blood samples for blood gases was also done.

The Haemodialysis Unit: I was introduced to the medical and technical detail on this unit by Dr. Balcueva (Chief of Internal Medicine, Saginaw General Hospital). After a short training period I was afforded the opportunity to hook patients on and take them off the kidney machine, all by myself. During this period I was responsible for heparin injections into the system as well as taking of blood electrolytes and clotting time. This was possible as the unit is on the medical floor in the Intensive Care Unit of Saginaw General. My experience here was both with arterio-venous fistulae and shunts (external).

Intensive Care and Coronary Care Units: It was indeed both a pleasure and a great experience to work on these special units designed for the short-term critical patients needing constant observation and sometimes emergency treatment such as defibrillation. Highly sophisticated physiological monitoring equipment records any significant change in the patient's condition and emergency equipment is at the bedside so that complications can be dealt with instantly. These range from simple things like a Central Venous Manometer, aspirators and respiratory ventilators to automatic blood-pressure-taking machines, electronic thermometers, kidney machines and two oscilloscopes per patient; one is above the patient's head while the other is at the nurses' station and facilitates constant observation over critically ill patients.

Conferences: These were held as indicated above and invariably proved very instructing and thought stimulating for two reasons. Firstly, practical current concepts and debatable problems were treated and secondly the sessions were very well attended by many doctors, students and nurses resulting in pooling of a very wide spectrum of experiences. The journal club meant that one of the externs or a doctor presented one or more articles from medical journals which have been of interest to him; these were presented in a concise manner and discussed in some detail by the attending audience of doctors. The audio digest consisted simply of listening on to recorded discussions by experts on any particular single topic in medicine such as blood dyscrasias. Medical conferences included topics such as:

Cardiopulmonary resuscitation by Dr. Irons

Respiratory Problems by Dr. P. Walsh & Tonio J. Bugeja

Pulmonary Embolism by Dr. Bullington

Supraventricular and Ventricular

Arthythmias — recognition and treatment by Dr. Behme and Dr. Lohr.

Surgical conferences included such recent topics as: Respiratory Failure with Acute Pancreatitis and Parenteral Hyperalimentation by Dr. Rice.

E.N.T. conferences included such recent topics as:

Headache and Head Pain — Dr. Weiss

Hoarseness, Sore throat and Masses in the neck by
Dr. Brown

Facial Paralysis by Dr. Engelman

Ear Disease by Dr. Redfield

Airway Obstruction by Dr. Cortopassi.

These topics were amply illustrated by slides. In other instances actual cases were brought forward from the three hospitals. Patients who succumbed to their illnesses often formed the theme of interesting discussions and instructing conclusions. This was especially so with the surgical conferences and with the clinico-pathological conferences; I paid a couple of visits to the post-mortem room myself too.

Surgery: Each hospital carries a suite of 8-12 large modern operating theatres at the centre of which is a large and capacious recovery room. The most stringent aseptic measures are taken especially so with major operations. The amount of "disposables" in use and the features just described proved as impressive as some of the finest procedures carried out in these theatres.

Of less medical note but new and interesting were:

- (a) a "teen unit" on the 4th floor of St. Luke's, reserved for the specialized problems of unmarried patients from 13 to 18 years of age.
- (b) discussions held under the chairmanship of the director of the corporation, Dr. P. Ways, once a week on such topics as "The Care of the Dying Patient" or "Problem oriented records". Much can be said in favour of the introduction in part or in whole of such records in Malta.

Libraries: Each of these hospitals carries a very well supplied library irrespective of the other two. A very wide spectrum of journals, books and reference works are obtainable here on loan. The libraries are open twenty-four hours a day! I found these libraries and the librarians very helpful in some research that I did during my stay in Saginaw. This included a case presentation (the 40th described in the literature) of lymphosarcoma of the bladder, which it is hoped, will be accepted for publication in the American Journal of Urology, research into the early detection of deep vein thrombosis and pulmonary embolism and a study on the "shock lung" phenomenon.

Finally, I was introduced to such investigations as brain, liver, kidney and thyroid scanning in the X-Ray department and to blood gasses estimation by the pathologists about which, until then I had only read in books.

Casualty Department of St. Mary's Hospital: This hospital proved different from the others in that its Casualty Department used to cater for the victims of frequent gun fights and other injuries which were common among the black people across the river. Traffic accidents are both common and severe in effects. I saw my first case of psychosis as a result of a traffic accident, over here. Heroin addiction and overdosage were not at all uncommon. An arterio-venous fistula in the neck secondary to a bullet wound, a diabetes insipidus syndrome secondary to a bullet which went through the hypothalamus and pituitary (I saw the patient later at post-mortem) and a very large diaphragmatic hernia secondary to a motorcycle accident were among some of the interesting cases I came across. The other two hospitals and St. Mary's presented varied pathology indeed. It is enough to mention some of the rarer pathology I saw over there in two months: hypernephroma with obvious skull metastasis, scleroderma with Raynaud's phenomenon. Reiter's disease, four cases of sickle cell anaemia (black patients), hereditary telangectasia, multiple sclerosis, amylotrophic lateral sclerosis, Conn's syndrome and three cases of Addison's disease. A striking case was that of a female ex-medical student who at the age of 27 years had had unrelated cancers of her rectum, her uterus and her breasts; she also had this hereditary telangectasia.

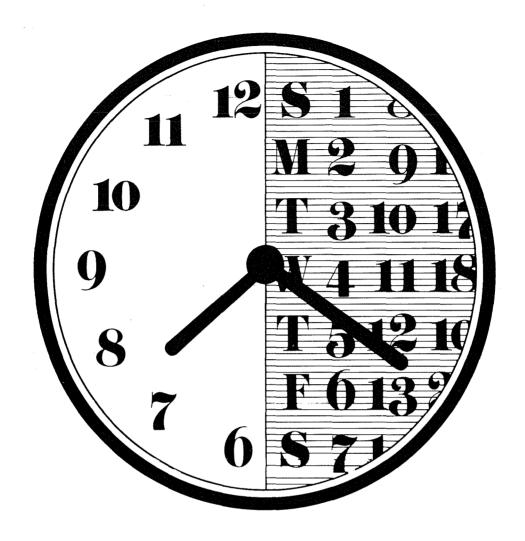
So far for the regular schedule. In addition when the opportunity arose I visited a paediatric voluntary clinic in Saginaw and the private clinics of the doctors I was working with; these activities helped me to complete the picture of "medicine in Saginaw".

During my stay abroad I had the time to pay short visits to Henry Ford Hospital in Detroit and Toronto General Hospital in Canada. At the latter I was introduced to among other things the very latest and very compact kidney machine by Dr. Arbus who heads the unit there. In this machine the blood percolates through fibre glass instead of the usual cellophane. For the rest, these hospitals run on similar lines to those in Saginaw, Michigan.

In retrospect it is difficult to imagine how one could put in such long hours but for two significant facts:

- (a) Doctors, nurses and all staff are invariably and relentlessly nice, inviting and encouraging
- (b) Saginaw as a tourist spot is hopeless; there isn't even a public transport. Everyone has a car. Infact there is no distraction whatsoever!

My personal experience of medicine in Saginaw has been described. It is hoped that medical students in the following courses will apply for clerkship in Saginaw. Saginaw Cooperative Hospitals Incorporated have expressed their wish to have more Maltese students clerking there during the summer.



Anxiety symptoms are often
the ones that trigger a patient's visit to your surgery - these are
generally relieved in a few hours. Depressive symptoms take at least a few days and sometimes a few weeks - before they are resolved.

LIMBITROL

treats anxiety in a matter of hours and depression in a matter of days

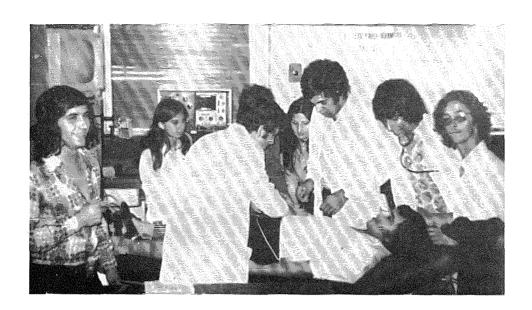


Anxiety symptoms are often relieved in 1 to 2 hours, and depressive symptoms usually respond within 7 to 14 days. Limbitrol is the trade mark for pharmaceutical preparations containing chlordiazepoxide and amitriptyline. Full information is available on request from Roche Products Limited, 15 Manchester Square, London WIM 6AP.

Agents: Cherubino, 89 Archbishop Street, Valletta

J48916A

Exhibitionists?



"And now, for our next trick...."

The restaurant was not nearly so salubrious as it had appeared from the outside, and the doctor was further put off by the fact that the waitress kept scratching her nose.

'Tell me my girl,' he said sharply, 'Have you got eczema?'

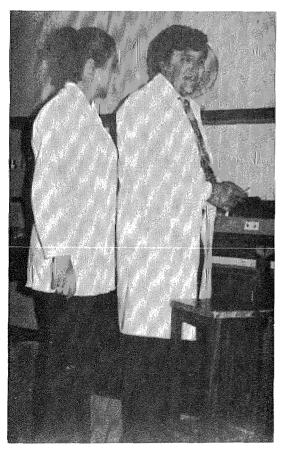
'Naw,' snuffled the waitress, 'Only what you see on the menu.'

The clinical lecturer pointed at the projection screen. 'It is clear from this X-Ray that one of this patient's legs is shorter than the other, which accounts for his limp. Now, Mr. Simpson — what would you do in a case like this?'

The student brooded for some time, and then earnestly replied: 'I suspect, sir, that I might limp too!'

The Survivors(Burp!)





"I'll scratch your back....

If you'll scratch mine."

Dementia Praecox Temporalis

SYMPTOMS OF THE DISEASE (according to George Mikes, the great Hungarian humourist)

- (1) a germ of the female species a charming young lady and at times a not so charming one makes the silliest and most commonplace remark and yet a member of the opposite sex considers Her wittier than Oscar Wilde, deeper than Pascal and more original than Bernard Shaw.
- (2) She calls Him Pootsie, Bimby or Angleface; nicknames Him Bubu or Dudu and He's enchanted and delighted.
- (3) She the germ cannot tell the difference between UNESCO, EEC or WHO and He finds this disarmingly innocent.
- (4) He expects Her to behave like a cocotte of the Folies Bergeres towards Him, and like a prime Victorian schoolgirl towards everybody else; in most cases it is only after years that He discovers that it's exactly the reverse.
- (5) When she flirts with others and is rude and cruel to Him, He buys Her a bunch of flowers or a box of chocolates and makes apologies to Her. If She misbehaves seriously, He buys Her jewellery.

AETIOLOGY:

Novels, stories, films, television and radio teach that this dangerous mental and physical disease is glorious, desirable, romantic — in short a sine qua non. The ailment is also highly contagious as witnessed by the fact that one case is followed by others and these yet by others; it may go to epidemic proportions and really get out of hand sometimes. The exciting factor is the GERM itself.

PATHOLOGY:

There is a high predisposition after puberty and in the teens via the mass media. The disease is contracted when the germ is encountered as the defences are already weakened. In other cases He is so intoxicated and taken in by the gloriousness of it all that He looks for the germ and having found it inoculates Himself with it, often fatally. Systemic spread occurs mainly via the senses of sight, hearing and touch but the illness is predominantly mental rather than cardiac (Love is in the mind not in the heart!).

COMPLICATIONS:

Marriage with the production of more "hosts and parasites". More remote but rather more up to date is a population explosion with all its implications.

PROPHYLAXIS AND TREATMENT:

George Mikes suggested that any propaganda inciting to love should be made criminal offence. The perpetrators of such an offence should be sent to the desert with their beloved for five or more years. One would agree completely with this form of treatment were it not for the following two facts:

- (a) that the result of such a treatment would probably mean that in a short while the deserts would be "full up" with nowhere to send any more infected offenders.
- (b) that prophylaxis in medicine has always been held to be better than cure. Now bacteriologically speaking this will take the form of immunisation which can effectively be carried out by the mass media. The basis of this prophylaxis is an analysis of the germ which we have called "SHE":

At the age of 20 SHE is like Africa, partly unexplored; At the age of 25 SHE is like AUSTRALIA, highly developed in the built up areas;

At the age of 30 SHE is like AMERICA, highly technical and always seeking new methods;

At the age of 35 SHE is like ASIA sultry hot and mysterious;

At the age of 45 SHE is like EUROPE, devastated but still interesting in places;

At the age of 55 SHE is like ANTARTICA, a disappointing end indeed dear colleages:

everybody knows where it is but nobcdy wants to go there (anymore)!

CONCLUSION:

So you see this is not the old story of a "new disease" about which we know nothing more than the name and a few odd ends; on the contrary this is a brief account of a disease as old as mother nature itself; a disease with which we are fully acquainted but which we continue to harbour. The farthest step that we have reached is only to try and stifle its complications by pills and "contraceptions", and attempt with a possible achievement which leaves much to be desired.

Dr. Ralis De Mentia (Retired in Gozo)

The Radiologist in the modern teaching Hospital

Paul Grech — Consultant Radiologist, Sheffield Regional Hospital Board and Lecturer in Radiodiagnosis, University of Sheffield

Perhaps it is true to say that no branch in Medicine has changed so drastically in the last twenty five years as did Radiology. Up to the last World War, the Radiology Department was usually housed somewhere in the basement of the Hospital and the Radiologist, often 'amateur' and 'honorary' popped in and out of the hospital and reported on piles of films, often unnoticed. More often than not, nobody took much notice of his reports. This was the sad state of Radiology in those far gone days.

Since the last World War, the whole of Medicine has changed a lot, and we feel that Radiology, through its evolution, has played a considerable part to bring about such a change. To take only one aspect, organ transplantation, cardiac surgery and vascular surgery have been made possible through the developments and advances in Radiology.

Nowadays, the Radiologist is often as busy with his hands as the surgeon. Diagnostic procedures which previously were carried out by the surgeon, orthopod or obstetrician, are now handed over to the radiologist because his results are often more definite, accurate and informative. The radiologist now has the time, dexterity and facilities to carry out such diagnostic procedures. Besides, the radiologist is more likely to be conscious of the radiation hazards and he will take the necessary steps to cut these down to a safe minimum.

The objects of this article are:-

- a) To draw you a picture of the professional life of the radiologist and to evaluate his contribution to Medicine in the modern teaching hospital.
- b) To consider briefly the place of Radiology in the Medical curriculum.
- c) To touch on the specialising facilities available, should any of you be attracted to radiodiagnosis, and
- d) finally to recall the opportunities and prospects that await the young radiologist.

Perhaps I should mention that I am mainly basing my remarks on my experience in the United Kingdom. Also, my observations relate to the teaching hospital. Obviously in the non-teaching hospital, there are not the facilities and need for the teaching and research that take place in the teaching hospital.

The Radiologist in the Teaching Hospital

Nowadays the Radiology Department is recognised as the 'nerve centre' of the hospital. It is here that diagnosis is usually made or confirmed. It is here that the results of treatment are assessed.

Discussions take place not only about the possibili-

ties and advisability of further radiological investigations, but also about the differential diagnosis and results to treatment. The Clinician feeds in the clinical details and the radiologist helps with the interpretation of the radiological findings. Often these conferences are extended to include the pathologist who proves or disproves

You will find that such discussions take place daily and are greatly beneficial to teaching, not only to the clinician, but also to the radiologist.

the radiologist's findings.

In the average teaching hospital you will find that there are several consultant radiogists and consequently sub-specialisation in Radiology is now possible and pretty well established. In the past, and this still applies to the smaller non-teaching and non-specialised hospital, the radiologist was expected to give an opinion in every branch of Medicine. In the teaching hospital you will find that the radiologist has the opportunity to subspecialise in a particular field e.g. neuroradiology, cardiovascular radiology, gastroenterology, paediatric radiology, obstetric radiology, and so on.

A teaching hospital is usually served by 3 to 6 consultant radiologists responsible for the radiological work, teaching and research commitments. One of these, usually the most senior, is in administrative charge of the department, or designated as 'director' or in a few instances 'professor'. Work is shared according to speciality, although there is usually some overlap.

These consultants are supported by senior registrars who are shared or rotate between the various hospitals in a group or region. There are a number of registrars, either pre-diplomate or those who have recently acquired their diploma and are waiting for a senior registrar post.

The place of Radiology in the Medical Curriculum

I feel we ought to start by considering the relationship radiology ought to have to undergraduate teaching. May I stress that I do not think that one should give the impression that we are turning the medical student into a radiological specialist.

Specialisation comes years after medical qualification. Having said that, I feel that the medical student ought to be made aware of:-

- i) The place and importance of the speciality in medicine as a whole.
- ii) The limitations and contraindications of the various radiological techniques.
- iii) Principles of interpretation of a chest plate and other common routine investigations.
- iv) All medical students should spend some time in the X-Ray department to see how such an organisation

You will find that more and more medical schools are taking steps to fulfill the above desiderata and even tome universities are now realising that radiology should play an earlier and greater part than this. In some centres radiology is now used during the teaching of structure and function i.e. Anatomy and Physiology. Groups of students go to the X-Ray Department to see investigations such as Barium meals and enemas, arteriography and angiography. After all, radiology is living anatomy and pathology. Closed circuit T.V. or video-tape systems are now installed to help with such teaching arrangements.

Medical students have elective periods during their clinical years during which they can do any subject so long as it is approved by the dean. Many, nowadays, go abroad; some go to other countries and a few may decide to do radiology. We always have one or two students who elect on Radiology and I have formed the opinion that they find this helpful towards their studies.

Perhaps one of the best undergraduate teaching systems is that developed at Newcastle where "all systematic instruction during the clinical years is given as a series of fully integrated courses based on subjects or systems of the body. There are no medicine lectures, surgery lectures" and son on, as such... "all disciplines take part in a carefully constructed course" to include all systems, and the radiologist forms an important member of such a team. (Smart, 1970).

Postgraduate Teaching

As I hinted earlier, clinicoradiological ward rounds and radiological discussions have become very popular in teaching hospitals. Housemen are encouraged to attend and to contribute to such discussions. Such sessions develop the young doctor and prepare him for higher medical examinations.

In most teaching centres radiologists are asked to contribute in special courses in preparation for higher examinations, particularly M.R.C.P., F.R.C.S. and M.R.C.O.G. Also, the radiologist is frequently invited to participate in post-graduate refresher courses including those with the general practitioner.

We are gradually moving to a stage where we appreciate that radiodiagnosis is interwoven with every aspect of medical life. The Ministry of Health in the United Kingdom and the Faculty of Radiologists, acknowledge that the radiologist's work load in the teaching Hospital is increased by these teaching and research commitments by 40 per cent.

Radiodiagnosis Specialisation

- i) Pre-radiological clinical requirements: One is often asked by young doctors or undergraduates intending to take up radiology about the extent of pre-radiological clinical experience. The brief lanswer should be 'the more the better'. The regulations, however, insist on a minimum of one year after the pre-registration house appointment.
- ii) Radiological Training: In the U.K. it is usual for the prospective radiologist to first get his D.M.R.D. This consists of two parts:— Part I comprising Physics, radia-

tion and photography — the exam is taken after 4 months.

Part II in clinical radiology, is taken at the end of two years.

The usual pattern is for the diplomate to spend a further year as registrar during which time he prepares for his F.F.R. This is usually taken after 4 years of full time radiology. The exam consists of papers in Medicine, Surgery, Pathology and Radiology.

The Faculty of Radiologists has now introduced a Part I F.F.R. and by October '72 all centres which before trained for the D.M.R.D. should also hold courses for the Part I F.F.R. which lasts over one academic year.

It is not unusual to find some of those registrars working in a teaching hospital to get an M.D. or an M.R.C.P. during their registrarship.

Opportunities and Prospects for the Future Radiologist

You may ask if Radiology is so appealing why is it that there are still vacant posts? The answer is complex - but there are many factors. a) In some medical schools, there is still not enough contact with the medical student. b) Some people still associate radiology with its hazards: these are normally cut down to a safe minimum. c) The 'second class' consultant which was associated, in the past, with the specialty. In those days 'Prima Donna' Physicians and Surgeons used to look upon the radiologist as a second class colleague — a back room worker. This description certainly no longer applies. d) Long training - and if you stop short of full specialisation, such training may be considered wasted. e) With more procedure being introduced, the specialty is already overworked — a vicious circle is established. Such a heavy workload might deter some. f) Brain-drain-vacancies occur everywhere, and radiologists in the U.S.A. and Canada earn a much higher income than those in the U.K. It is estimated that about 12-15 trained radiologists leave England every year.

At the moment there is a shortage of trained radiologists relative to other branches of Medicine in the U.K., especially in the non teaching hospitals, in the U.S.A. and Canada and even in some European countries. At the same time there is likely to be an increase in the number of adademic posts in the main teaching centres in the U.K. Consequently the outlook for the young, keen and interested aspirant is bright.

Radiology is expanding the whole time. Not only the equipment is getting more complicated, but also other diagnostic gadgets are being added. Isotopes now are in wide usage in Medicine, and more recently Ultrasound and thermography have found their use in Radiodiagnosis.

It is now being realised that the radiologist has acquired too much on his plate and the time is approaching for the need of a Physician in Nuclear Medicine taking over and be responsible for Isotopes and maybe other non-radiological investigations. I would have thought that radiologists with special training in Nuclear Medicine would be ideally suited. The first of such courses is starting in London at the end of this year.

Conclusion

To sum up, radiology has undergone a complete transformation and perhaps no branch of Medicine has changed so much over the last 25 years. The radiologist does not spend all his time in front of the familiar pile of radiographs, endlessly reporting. He carries out procedures which are exacting and entail considerable dexterity. The radiologist is now accepted as an important member of the medical team. "He acts as a catalyst between the various branches" (Teach-in. 1972) He con-

tributes enormously to the teaching programme, both to undergraduates and post-graduates.

I have found the specialty interesting and absorbing, and I am sure that if the right person among you decides to take up Radiology he will not have a chance to regret his decision.

References

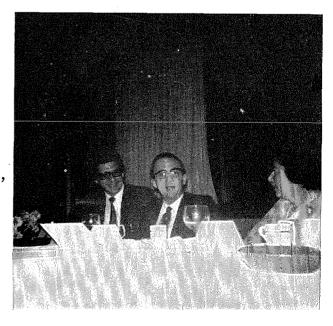
Smart G. (1970) "The place of radiodiagnosis in the undergraduate medical curriculum". Proc. Roy. Soc. Med. Vol 63, 837. "Teach-in" (1972) Feb., 163-174.

The Annual Dinner



"My husband and I...."

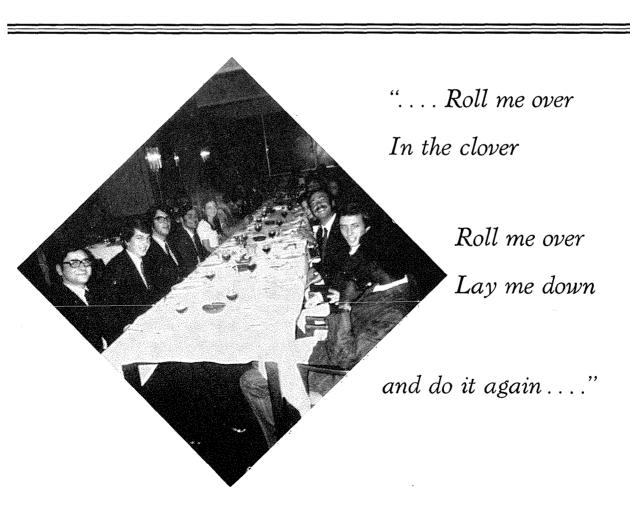
"No! I'm adamant I shall NOT deliver a speech"



THE TOP TWENTY

Five Hundred Piles

Where have all the flowers gone	≘?										•••	•••	•••	•••	Bach
Music for relaxation				•••						• • •				•••	Borborygmi
Too Young			•••		•••										JLP
All kinds of everything							•••				•••				Jenny Tale Ya
Those cotton wool balls															The Teddy Bears
Zorba the Greek											•••	•••		•••	Apopiso
Jumpin' off a Cliff											•••				Hugo First
If I had a hammer															The Jerks
Mama we're all crazee now															Gaga
Those mountains are but mo	lehills												•••		The big Falsies
No Speech Today												•••			Arthur Dean
•															
-															
-															•
· ·															
•															
-															
	Music for relaxation Too Young All kinds of everything Those cotton wool balls Zorba the Greek Jumpin' off a Cliff If I had a hammer Mama we're all crazee now Those mountains are but molehills No Speech Today Blowing in the wind Your Drooling Mouth Pssss go the tyres Levator anguli oris aleque nasi A walk in the Black Forest Squeak, squeak, squeak Pull me out and suck me tight	Music for relaxation Too Young All kinds of everything Those cotton wool balls Zorba the Greek Jumpin' off a Cliff If I had a hammer Mama we're all crazee now Those mountains are but molehills No Speech Today Blowing in the wind Your Drooling Mouth Pssss go the tyres Levator anguli oris aleque nasi A walk in the Black Forest Squeak, squeak, squeak Pull me out and suck me tight	Music for relaxation Too Young All kinds of everything Those cotton wool balls Zorba the Greek Jumpin' off a Cliff If I had a hammer Mama we're all crazee now Those mountains are but molehills No Speech Today Blowing in the wind Your Drooling Mouth Pssss go the tyres Levator anguli oris aleque nasi A walk in the Black Forest Squeak, squeak, squeak Pull me out and suck me tight	Music for relaxation Too Young All kinds of everything Those cotton wool balls Zorba the Greek Jumpin' off a Cliff If I had a hammer Mama we're all crazee now Those mountains are but molehills No Speech Today Blowing in the wind Your Drooling Mouth Pssss go the tyres Levator anguli oris aleque nasi A walk in the Black Forest Squeak, squeak, squeak Pull me out and suck me tight	Music for relaxation Too Young All kinds of everything Those cotton wool balls Zorba the Greek Jumpin' off a Cliff If I had a hammer Mama we're all crazee now Those mountains are but molehills No Speech Today Blowing in the wind Your Drooling Mouth Pssss go the tyres Levator anguli oris aleque nasi A walk in the Black Forest Squeak, squeak, squeak Pull me out and suck me tight	Where have all the flowers gone? Music for relaxation									



The New Seaters

Tracheotomy - A Student

One of the oldest successful ventures into the realm of surgery, and has been instrumental in saving lives of countless people over many centuries. Nowadays, it is being used with increasing frequency in the treatment of any patient with respiratory failure.

Tracheotomy may be indicated in:

- a) Central lesions causing depression of the respiratory centres, to guard patients from inhaling secretions and to help intermittent positive pressure respiration.
- b) Lesions of the efferent nerves controlling the muscles of respiration and lesions of the neuromuscular junction since the patient cannot be maintained for more than one to two days with a cuffed endotracheal tube.
- c) Lesions of the chest wall.
- d) Lesions of the lungs themselves.
- e) Major operations on upper respiratory tract
- f) Airway obstruction which may be due to laryngeal carcinoma, paralysis of the vocal cords, (especially through severance or destruction of the recurrent laryngeal nerves) foreign bodies in the larynx. These require urgent operation.

Technique:

Tracheotomy is a surgical construction of a 'window' in the trachea — best done under general anaesthesia. In respiratory obstruction it must be done under local anaesthesia. If possible it is best done in an operating theatre.

The patient's neck is extended, a sandbag being placed under his shoulders. What will be briefly described is the way a beginner had best act in the face of an emergency requiring this operation. So, with the patient in the above mentioned position, the area to be incised is cleaned and with a knife (possibly sterile) a vertical skin incision is made from the level of the cricoid cartilage to the supra sternal notch. Dissection is carried out strictly in the midline. The strap muscles are separated until the trachea can be felt. The opening into the trachea is made at about the fourth tracheal ring, having first divided the thyroid isthmus (between clamps). It is of great help to steady the trachea using a blunt hook placed beneath the cricoid and pulled gently, but firmly, towards the patient's chin. To keep the incision open, use small retractors on each side. The tracheostomy tube is introduced and tied with tapes. At this stage the trachea is aspirated. It is safer to open the trachea from below upwards for the innominate vessels may pass across the trachea higher than usual.

After-care of a tracheotomy includes:-

- a) Humidification provided, as for example, in the form of steam to prevent crusting of secretions occurring.
- b) Suction— because the patient is deprived of his cough

reflex. This procedure must be carried out under strict aseptic conditions for infection is very easily introduced.

- c) Cleaning of the tube— about twice a day. This is easily done with a metal tube, but with a rubber tube which has to be removed this should not be done in the first 2 days since the hole might close on removal of the tube as a track would not yet have been formed (especially in children).
- d) Deflation of the cuff in the case of a rubber tube
 so as not to cause pressure necrosis.
- e) Spare tube should always be handy in case the original one comes out.
- f) Tube feeding often required making sure the patient is having an 'adequate diet.
- g) The patient should always have a bell handy to attract attention. He should be given the means by which he can express his necessities.

Complications of Trecheotomy include:-

- i) Apnoea if the patient has been exposed to a high concentration of Carbon Dioxide.
- ii) Bleeding.
- iii) Damage to the oesophagus.
- iv) Damage to the cricoid cartilage occurs if the tracheotomy has been done in the first and second tracheal rings.
- v) Surgical emphysema of the neck and chest occurs if the skin is tightly sutured round the tracheostomy.
- vi) Pneumothorax a chest X-Ray should always be taken after a Tracheotomy.
- vii) Pressure Necrosis from neglect of deflating the cuff for at least 5 minutes every hour and left so as soon as possible.

Stridor after tracheotomy may occur from tube displacement or blockage by secretions. This, together with the complications, is attended to accordingly as it crops up — the patient requires constant supervision.

Many tracheotomies are done in order to produce temporary relief, and so should be closed as soon as possible due to the risk of infection. Decannulation may be done by progressive corking of the tube or by substituting smaller and smaller tubes. The tube should be blocked for twenty four hours before removing it. If the patient can conduct his normal necessities without stridor, it is safe to remove the tube. Decannulation is more difficult in an infant because scarring narrows the lumen of the trachea considerably, and the child has to be retrained to breath from his nose since he would have got used to breathing through the tube.

Some patients require a permanent tracheotomy which is handled by experts. These raise a flap of the trachea and suture it to the skin with a better chance of remaining patent.

Ulcerative Colitis

R. Farrugia Randon M.D.

Although this disease is not common in Malta, it is one that should deserve more of our attention. It is a chronic disease and very often associated with complications. This survey aims at presenting the incidence, aetiology, pathology, clinical presentations, complications and progress of this multifacial disease as it occurs in these islands.

History:

It is not exactly known when this disease was first described. It was referred to by name in the second half of the 19'th Century. It seems probable, however, that its existence was recognised for a long time before then. In 300 A.D. Aretaeus described a disease which may well have been Ulcerative Colitis, and in Roman times a description of it was given by Soranus in A.D. 117. In the Middle Ages the distinction between the infectious and non-contagious types of diarrhoea became clear. Whereas the former flourished amongst the poorer classes, the latter affected mainly the well-to-do. In 1859 Sir Samuel Wilks, for the first time, coined the word 'Ulcerative Colitis' in conjunction with the description of the intestine of a patient, a certain Miss Banks. By the beginning of the 20'th Century the term Ulcerative Colitis had passed into common usage. By 1909 some 300 cases were presented before the Royal Society of Medicine. Despite its long history a universally accepted definition of the disease is lacking, mainly because of its obscure aetiology.

Method:

The study presented covers the ten year period 1961-1970. All the particulars of patients admitted to S.L.H. over this period were obtained. The History sheets, Barium Enemas etc. of each case were then examined, and some of the patients were also interviewed.

Incidence:

Over the ten year period studied, 59 patients were found to be hospitalised for this disease. Of these, 38 were females and 21 males. The youngest patient of the series was six year old, and the eldest seventy nine. The average age of onset was forty six years for males, and thirty eight years for females.

Table I

Age of onset	M ale	Female
0 - 9	1	0
10 - 19	2	4
20 - 29	3	12
30 - 39	2	7
4 0 - 49	6	5
50 - 59	2	4
60 - 69	2	6
70 - 79	3	0

As seen from Table 1, the disease locally affects mostly men in their forties and women in their twenties and thirties as well as middle aged ladies. In Britain the 20-40 age group is mostly affected, while in the U.S.A. the disease occurs mostly in children, teenagers and young adults. As seen in Table two, the disease in Malta is definitely getting more common.

Table II

Year	No. of Cases
1961	6
1962	3
1963	3
1964	7
1965	6
1966	7
1967	6
1968	9
1969	9
1970	3

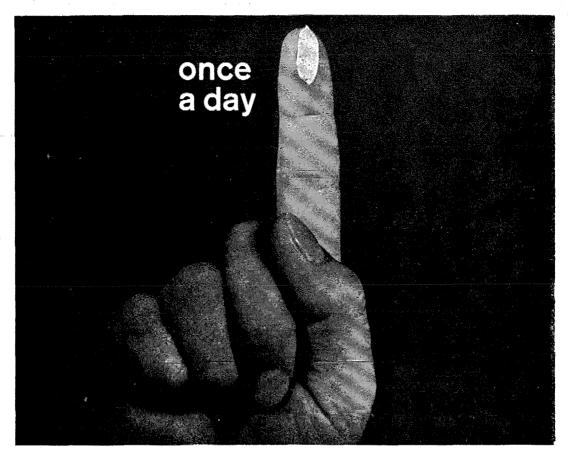
The disease occurs mostly in urban areas. It is rare in Spain, Middle East, Japan, Central and South America; but more common in England, New Zealand, Scandinavia and U.S.A. Only two cases recorded in this series admitted to having a family history of this disease. Kirsner & Spencer (1) found that 5.2% of their patients had a family history of the disease.

Aetiology: (according to Kirsner (2))

Many hypotheses have ben put forward regarding the aetiology of this disease. Some workers lattribute the disease to defective cellular regeneration in the Colon and Rectum. Others attribute the cause to the action of cytotoxic enzymes released from Colonic cells. Non occlusive Mesenteric and/or Colonic Vascular ischaemia has also been proposed. Emotional factors do play a part in this disease, but only few believe that they are causative factors. Another hypothesis considers Ulcerative Colitis as an auto-immune disease. The disease responds well to steroids. Only a few believe that it is caused by a bacterial and viral infection, intensified by bacterial enzymes and endotoxins. Some believe that the disease is due to a hypersensitivity reaction and the allergen most widely investigated is milk. Only very few consider this disease as one of the Collagen Diseases.

Pathology:

Ulcerative Colitis affects the Colon (3) in 65-75% of cases, and extends up to the lleum in the remaining 35-25%. It usually starts in the recto-sigmoid region and extends upwards. Initially mucosal haemorrhages arise in the crypts of the mucosal glands. These haemorrhages then suppurate, the abscesses being formed undermine the



Ultralan

The highly effective corticoid ointment for economic treatment of allergic and inflammatory skin conditions.

Tubes of 10 g. and 30 g.

For detailed information on indications, dosage, mode of action, particular recommendations and contra-indications, please consult the Ultralan scientific brochure and the packing slip.



Schering AG Berlin

mucosa and small ulcers form therein. Such ulcers usually extend only as far down as the muscularis layer. Sometimes the muscularis is also invaded, and so pericolic abscesses, fistulae and peritonitis occur.

Clinical Presentation:

Two main Clinical types (4) occur:-

- i) Fulminating onset type five cases, and
- ii) Chronic type fifty four cases.

In the first category, the patient presents with fever, severe diarrhoea and rectal bleeding. The stools contain, apart from fresh blood, mucus and pus. The patient is usually very ill and toxic. In the Chronic type the patient, after a first attack which is usually moderate in severity, has a number of other attacks at variable intervals. The patient becomes anaemic and wasted. Diarrhoea and Rectal bleeding are the most salient features during relapses.

Ulcerative Colitis presents many a complication. These may be local or General:

Local:

- a) Pseudopolyposis 3 cases.
- b) Cancer 3 cases.
- c) Perforation and Haemorrhage 6 cases.
- d) Stricture 2 cases.
- c) Fistula-in-ano 1 case.
- f) Fissure-in-ano 3 cases.
- g) Haemorrhoids 4 cases.

In this study no cases were recorded of recto-vaginal fistulae, ischio-rectal abscesses.

- a) Impaired liver function 5 cases.
- b) Arthritis 3 cases.
- c) Anaemia 16 cases.
- d) Scleritis 1 case.
- e) Electrolyte disturbances 4 cases.
- f) Serum protein changes 9 changes.

In this series no cases of sacro-ilitis, ankylosing spondylitis, skin diseases or Iritis were found as complications of this disease. In more than 25% of cases there were changes in weight due to inadequate food consumption, diarrhoea, vomiting, and faulty intestinal absorp-

Prognosis:

It is very difficult to give a prognosis in this disease. Factors which aid in its assessment are i) extent of involvement of the gut, ii) age and previous health of patient, iii) presence of complications and iv) severity of the disease. Prognosis is very poor in the fulminating cases. Seven of the fifty nine patients in this series died. Of the seven five were males.

Acknowledgements:

My thanks go to all medical and surgical consultants for having given me permission to look up the histories of their patients. My thanks also go to Profs. J.L. Pace for having made many a valuable suggestion Bibliography:

- (1) Kirsner & Spencer (1963) "Familial occurence of Ulcerative Colitis, Regional Ileitis and Ileocolitis" Annals of Internal Medicine Vol. 5, 9 Pg. 133.
 - (2) Kirsner Journal of Chronic Diseases.
 (3) Robbins Pathology

 - (4) Bailey & Love Textbook of Surgery.

Here, in a grave remote and quiet Starved by a new 'reducing diet'. Lies foolish Mrs. Skinner Who smiled to see herself grow thinner. And kindly death, when she had gone, Reduced her to a skeleton.

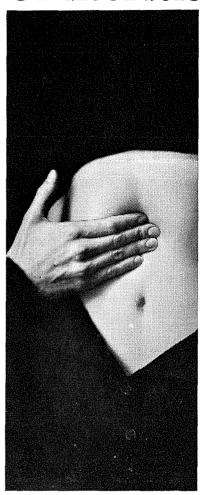
> 'I arise from dreams of thee And my little shorts I get in, Then I start some foul P.T. And I look a perfect cretin; Half a minute slowly passes In excruciating pain, Then, unlike the other asses, Im for beddybyes again.'

As I was going up the stair I met a man who wasn't there He wasn't there again to-day -I wish to God he'd go away!

Headache Backache



GI disorders



and a 79.5% response to Valium*Roche



Full information is available on request from: Roche Products Limited, 15 Manchester Square, London W1M 6AP.

In a group of 13 clinical trials† Valium Roche was given to 898 patients whose anxiety manifested itself in physical symptoms like headache, backache and GI disorders. A satisfactory response was reported in 714 (79.5%) of these patients.

Valium Roche relieves the physical as well as the emotional symptoms of anxiety.

†Full details of these trials are available on

*trade mark for pharmaceutical preparations containing diazepam

J95458

Agents: Cherubino, 89 Archbishop Street, Valletta

The Shock Lung - Tonio J. Bugeja

This is a summary of a paper read by Tonio J. Bugeja at the Intensive Care Conference at St. Luke's Hospital, Saginaw, Michigan, on August 2nd, 1972.

The pulmonary lesion which occurs with trauma and shock has been variously known as "traumatic wet lung", "congestive atelectasis" or "haemorrhagic pulmonary oedema". Recently the designation "shock lung" has been used. It has now been established that in patients who die of shock and trauma, the lungs are involved more frequently than any other organ.

Pathology

Often on gross examination the lung tissue exhibits evidence of congestion and oedema as well as thromboembolism and bronchopneumonia. The tissue is often of a dark purple colour. Occassionally pulmonary haemorrhage, haemothorax and hyaline membrane formation are encountered.1 If these pathological changes are extensive the lungs may appear solid.

On microscopical examination there is marked interstitial oedemal; the alveolar spaces in the involved parts of the lung are filled with fluid and red and white blood cells. Oedematous thickening of the interalveolar septa and marked capillary congestion are additional features2. Fat embolism is often met with while hyaline membrane formation occurs occassionally. In cases where the shock is severe, large areas of all lobes may be involved.1,2.

Aetiology

The mode of production of shock lung is as yet theoretical. Eaton, Czebrinski and Smith3 suggested that pulmonary capillary hypoxia caused by the blood loss and tissue trauma lead to an increase in capillary permeability and hence alveolar oedema. Blaisdell et al4 suggested that the primary consequence of blood loss and tissue trauma is pulmonary microembolism which then leads to a significant diminution of clotting factors. The intravascular coagulation is held responsible for the parenchymal damage in the lung. Other workers 5,6 consider a loss of pulmonary surfactant and therefore a rise in the surface tension as the major cause of alveolar collapse and transudation into septal tissues.

Clinical Features

Shock lung is clinically characterized by progressive respiratory failure in the shocked patient, falling PO2 levels increasing tachypnoea, dyspnoea and cough, cyanosis, respiratory acidosis and physical signs of pulmonary congestion or pneumonia.4 The arterial hypoxaemia is uncorrected by oxygen breathing;7 a low central venous oxygen saturation⁸ has also been noted. Some of these features are accounted for by abnormal diffusing capacities,9 redistribution of pulmonary blood flow10 and ventilation perfusion defects.11 Often respiratory failure sets in days after the surgical repair of the traumatized tissue as well as the rise of the blood pressure to quasi normal values; it may however appear with and in the presence of shock.11

Treatment

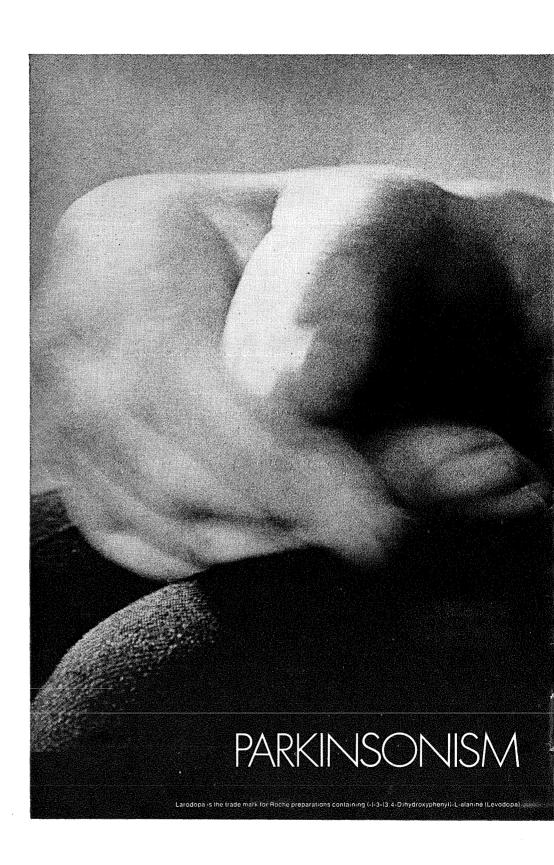
This includes the correction of shock and the hypovolaemic state. The traumatized tissue must be repaired as soon as possible. 12 In the case of cardiogenic shock, cardiac failure as well as any arrhythmias must be dealt with. Digitalis and isoproterenol are to be used to improve the intrinsic efficiency of the heart. Vasoconstrictors may be useful. If thromboembolism is thought to be present heparin is also administered. Good ventilatory theory is a major part of the treatment. This includes clearing the airways of excess secretions, ensuring adequate oxygen administration and appropriate antibiotic cover. Continuous positive pressure breathing may be of basic importance in the management of these patients.11

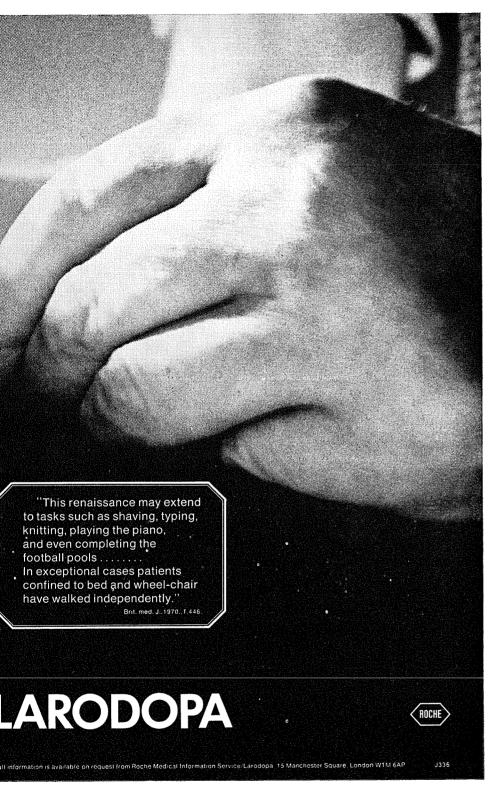
References:

- 1. Martin, A.M., Soloway, H.B. & Simmons, R.L.: Pathologic anatomy of the lungs following shock and trauma. J. Trauma 8: 687, 1968.
- 2. Clowes, G.H.A., Zuschneid, W., Dragacevic, S & Turner, The nonspecific pulmonary inflammatory reactions leading to respiratory failure after shock, gangrene & sepsis, J. Trauma 8:899, 1968.

- 3. Eaton R.M., Czebrinski E.W., & Smith J.R.: Observations on pulmonary arterial pressure and peripheral venous pressure following arterial blood loss, J. Thoracic Surg. 14: 399, 1945.
- 4. Blaisdell, F.W., Lim R.C. & Stallone R.J.:

 The Mechanism of pulmonary damage following traumatic shock, Surg. Gynec, Obstet. 130: 15, 1970.
- 5. Bergofsky E.H: The adult acute respiratory insufficiency syndrome following non-thoracic trauma: The lung in shock, Amer. J. Cardiol. 26:619, 1970.
- 6. Ayres S.M., Mueller H, Giannelli, S., Fleming, P., & Grace, W.J.: The Lung in Shock, Amer. J. Cardiol. 26:588, 1970.
- 7. Sukumalchantra Y., Danzig R., Levy S.E., & Swan H.J.C.: The mechanism of arterial hypoxaemia in acute myocardial infarction, Circulation 41:641, 1969.
- 8. Goldman R.H., Klughaupt, M., Metcalf, T., Spiwack, T.P. & Harrison, D.C.: Measurement of central venous oxygen saturation in patients with myocardial infarction, Circulation 38:941, 1969.
- 9. Valencia, A., & Burgess, J.H.: Arterial hypoxaemia following acute myocardial infarction, Circulation 40:641,
- 10. Kazemi, H., Parsons, E., Valencia, L., & Strieder, D: Distribution of pulmonary blood flow after myocardial ischaemia & infarction, Circulation 41:1025, 1970.
- 11. Kamada, R.O., Smith, J.R. & Mc St. Louis: The Phenomenon of Respiratory Failure in Shock, Amer. Heart J. 83:3, 1972
- 12. Hardaway, R.M., James, P.M., & Anderson, R.W., Intensive study and treatment of shock in man, J.A.M.A. 199:779, 1967.





Agents: Cherubino, 89 Archbishop Street, Valletta

SUPPORT US BY SUPPORTING OUR

ADVERTISERS

THE LARGEST MEDICAL & DENTAL DEFENCE ORGANISATION IN THE WORLD

Membership exceeds 70,000

Established over 85 years

THE MEDICAL DEFENCE UNION

TAVISTOCK HOUSE SOUTH TAVISTOCK SQUARE LONDON, W.C. 1H 9LP

DOCTORS AND DENTISTS WHO QUALIFY IN MALTA ARE ELIGIBLE FOR MEMBERSHIP

The Medical Defence Union offers:

Experienced advice on all professional problems. Legal assistance in proceedings of a professional nature. Unlimited indemnity in respect of damages and costs in the event of an adverse verdict or a settlement out of court.

ADVICE AND HELP AVAILABLE FROM OUR AGENTS IN VALLETTA

Secretary Philip H. Addison, MRCS, LRCP D. Gibson Davies, L.D.S.

Dental Secretary

Maximum Efficacy Minimum Dosage Optimum Tolerability

Daonil®

Trial name: HB 419 [Glibenclamide]

The new key to endogenous insulin

Composition:
Tablets containing 5 mg
N-4-[2-(5-chloro-2methoxybenzamido)-ethyl]-phenylsulphonyl-N'-cyclohexylurea





HOECHST – a pioneer in diabetes therapy

Farbwerke Hoechst AG 6230 Frankfurt (M) 80 · Germany Mercurius Trading Agency, 160 Strait Street, Valletta/Malta

HEARD IN THE HIVE

Dear Sir,

Having now settled in the Medical School, we pick up a pen to write some of the interesting happenings that have caught our imagination. We'll start on a good note and say that lectures, administration and organisation have impressed us by their high standard, although coordination of lecture topics in the various subjects is rather poor.

With that goes the striking news that a casual meeting in summer meant to introduce us to the realms of Haematology turned out to be an assessment . This is made worse when one considers that the same Department is not venturing on the 'Experiment' of continuoud assessment and that secondly some students were called up barely 10 days after doing away with the burdens of the Anatomy and Physiology finals whereas others were called in September thus having a better chance of preparing tnemselves.

To turn to some more pleasant topics, we will mention some of the interesting statements and comments heard in the Beehive, that are so dear to

- the judicious use of an ice pack!!!
- the law is an ass!!!
- the characteristic feature of permanent indecision in the lectures of semeiotics.
- the rapid enunciation of verbose Latin dicta.
- the categorical statement that a person doesn't like people coming in from behind.
- the name of the Rickettsia causing typhud fever is P. Prowaseki...but who cares if one cannot read the writing on the screen, or hear the lecturer, after all - the shoes have such a characteristically melodious squeak.
- I seeeeeeee. What a big Minestra this is.......
-to sign or not to sign. Was our statement linked, as some were heard to
- say, with some other subversive motion ??? the brilliance of the words uttered by one of our colleagues (Colonel Major Spicey) at the class meeting when he held the floor for 2 minutes, and for thirty seconds thereafter one and all were seen gaping incredulously trying to digest the high sounding words uttered.....to no avail. The ice was beautifully broken by another of our colleagues (Pssssssssss.....) who asserted that there must have been some sense in the statement since nobody could understand it. (Best regards to Police Seargent Bianco Psssssssssssssssssssssssssssssss) first prize for absurdity and waste of time mudt surely go to to "You know who" for 4 lectures on the history of Virology (out of a total of 7). We were subsequently told that only three lectures were alloted to viruses. the above notwithstanding, we must congratulate "You know who" on the 150'th. anniversary of his appointment to the Chair of Bacteriology. Long
- may scientific progress pass him by, and pleas for practicality fall on deaf ears.

" RULE BRITTANIA. BRITTANIA HOBS BIZ-ZEJT....."

..... the grafting of the prepuce to the nose.....aaaaaaatttishooooo..... Anaesthesia is....er...is aehm...n...s...isma, ahna sen komplu jew ?Iva kwazi gejja.....'

For completeness sake, we feel that we must remind all medical students these two famous dicta, reminescent of the outspoken lectures we were all used to at the pre-clinical course, though one was rather introvert (?) and persists in categorically saying he never promised anybody anything:

> "The student has a pathetic faith in the generosity of the Examiner." "Once you see it you never forget it."

> > DRONE AND QUEEN BEE

P.S.

We'll be humming in next issue.