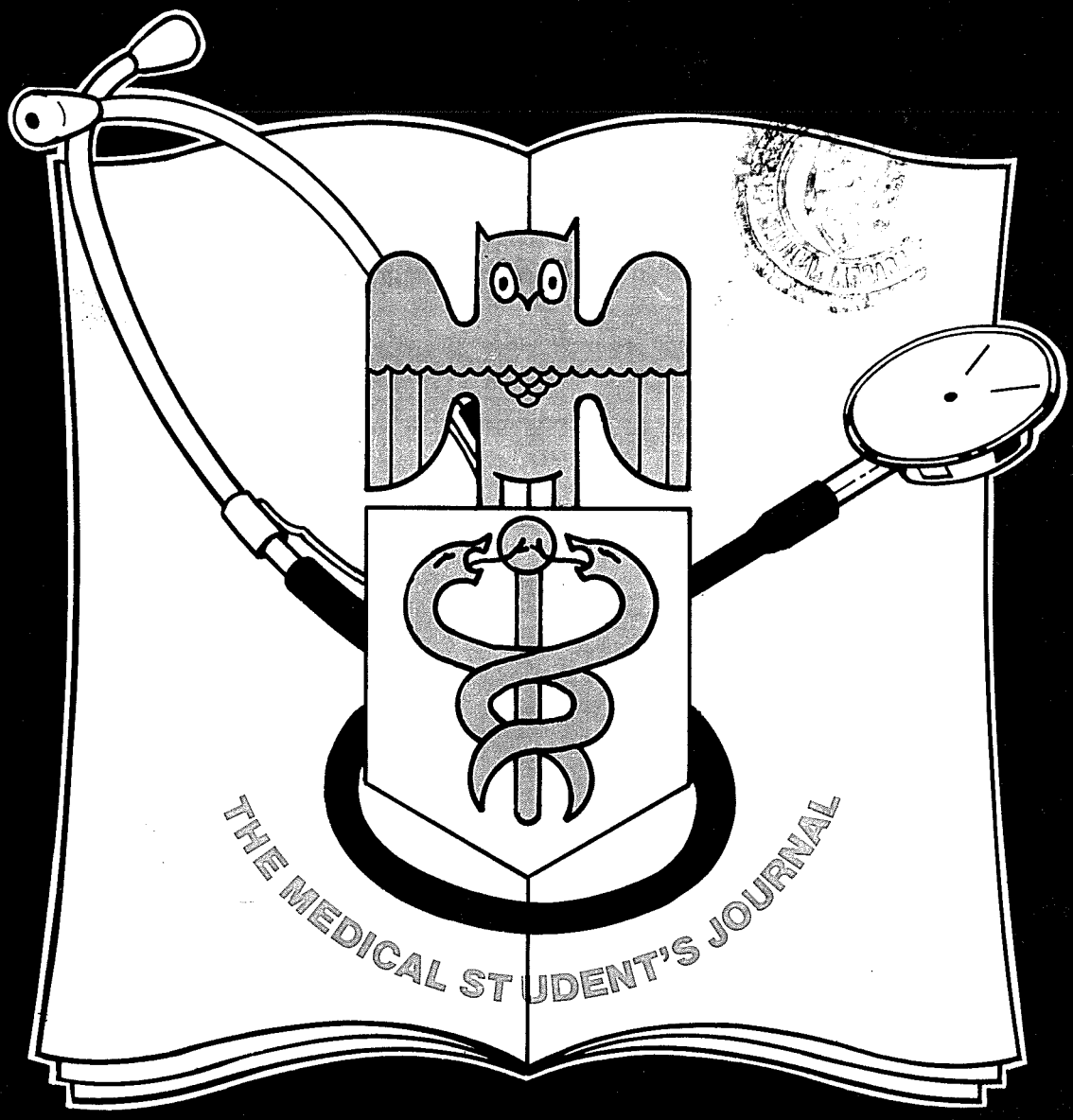
Medi-Scope

ISSUE No.4 OCTOBER-DECEMBER 1983



M.S.A.

The confidence of cardioselectivity, with the benefits of hydrophilicity

Cardioselectivity allows a wide spectrum of patient selection.

- **Confident prescribing in insulin-dependent diabetics.**[1]
- **May be preferable in hypertensives who smoke.**[2]
- **Ability to prescribe, with care, to patients with potential airways problems.**[3,4]

Hydrophilicity makes the prescribing and taking of 'Tenormin' more acceptable to doctor and patient.

- **Predictable dosing**
  one tablet daily–no dosage titration necessary for most patients.[5]
- **Easy dosing**
  one tablet daily for 24-hour control of blood pressure.[4,5]
- **Fewer side effects, especially CNS-related side effects.**[5,6]

Tenormin I.C.I.

Local Agents: ASSOCIATED DRUG Co., 168 St. Christopher Str., Valletta.

Tel: 625711

Prescribing information

MYSOLINE TABLETS
MYSOLINE ORAL SUSPENSION

Presentation

'Mysoline' Tablets are round, white, bi-convex, printed with a parallel line on each side of the bisecting line on one face and with the ICI roundel on the obverse, and contain 250 mg Primidone BP.

'Mysoline, Oral Suspension is a white, pleasantly flavoured aqueous suspension which contains 250 mg Primidone BP per 5 ml.

Uses

'Mysoline' is an anticonvulsant of high activity and low toxicity which is outstandingly effective in grand mal and psychomotor (temporal lobe) epilepsy, of considerable value against focal or Jacksonian seizures, and frequently of help in petit mal and in the control of myoclonic jerks and akinetic attacks.

Dosage and administration

'Mysoline' is given by mouth. Treatment must always be planned on an individual basis. In many patients it will be possible to use 'Mysoline' alone, but in some, 'Mysoline' will need to be combined with other anticonvulsants or with supporting therapy.

Begin with ½ tablet once daily late in the evening. Every three days increase the daily dosage by ½ tablet until the patient is receiving 2 tablets daily. Thereafter, every three days increase the daily dosage by 1 tablet in adults or ½ tablet in children under 9 years – until control is obtained or the maximum tolerated dosage is being given. This may be as much as 6 tablets a day in adults; 4 tablets a day in children.

Average daily maintenance doses:	Tablets (or 5 ml measures of suspension)	Milligrams
Adults, and children over 9 years	3 – 6	750 – 1,500
Children 6 – 9 years	3 – 4	750 – 1,000
Children 2 – 5 years	2 – 3	500 – 750
Children up to 2 years	1 – 2	250 – 500

The total daily dose is usually best divided and given in two equal amounts, one in the morning and the other in the evening. In certain patients, it may be considered advisable to give a larger dose when the seizures are more frequent. For instance: 1) if the attacks are nocturnal then all or most of the day's dose may be given in the evening; 2) if the attacks are associated with some particular event such as menstruation, a slight increase in the appropriate dose is often beneficial.

Contraindications, warnings, etc

Pregnancy

There is some evidence of a higher than average incidence of congenital abnormalities in infants born of epileptic mothers. The precise factors influencing this are unknown, but the possibility that anticonvulsant therapy may be involved and the very slight risk of an abnormal fetus must be weighed against the risks of withholding treatment during pregnancy. Long-term anticonvulsant therapy can be associated with decreased serum folate levels. As folic acid requirements are also increased during pregnancy, regular screening of patients at risk is advised, and treatment with folic acid and Vitamin B_{12} although controversial, should be considered.

Anticonvulsant therapy in pregnancy has occasionally been associated with coagulation disorders in the neonates. For this reason pregnant patients should be given Vitamin K_1 through the last month of pregnancy up to the time of delivery. In the absence of such pre-treatment then 10 mg Vitamin K_1 may be given to the mother at the time of delivery and 1 mg should be given immediately to the neonate at risk.

Overdosage

Treatment of overdosage should include aspiration of stomach contents and the usual supportive measures.

Side effects

If side effects do appear they are generally confined to the very early stages of treatment. Patients may feel drowsy and listless and experience other minor neurotoxic symptoms such as giddiness, difficulty in accommodation, mild nausea and, very occasionally, vomiting. A morbilliform rash has been observed in a few cases. These symptoms, even when prominent, are not usually serious and generally disappear completely within a few days, even though treatment is continued. In cases of idiosyncrasy, however, neurotoxic symptoms may occur in an acute and distressingly severe form and very occasionally a patient may prove unsuitable for 'Mysoline' therapy on this account.

Other rare side effects include oedema of the legs, thirst and polyuria and impairment of sexual potency. Exceptionally, as with phenytoin and phenobarbitone, megaloblastic anaemia may develop. This can be rectified by the simultaneous administration of folic acid or Vitamin B_{12}. In some instances better results have been obtained when folic acid and Vitamin B_{12} have been used together. (See also 'Pregnancy').

Pharmaceutical precautions

'Mysoline' Tablets and 'Mysoline' Oral Suspension must be stored in the manufacturer's original containers.

Detailed information is available on request.

Imperial Chemical Industries Limited
Pharmaceuticals Division
Alderley Park Macclesfield
Cheshire England

Mysoline

Local Agents: ASSOCIATED DRUG Co., 168 St. Christopher Str., Valletta. Tel. 625711

Collis Williams

300 REPUBLIC STREET, VALLETTA

Tels. 24104 624567

Telegrams: "Colliams" Valletta-Malta

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PHARMACEUTICALS

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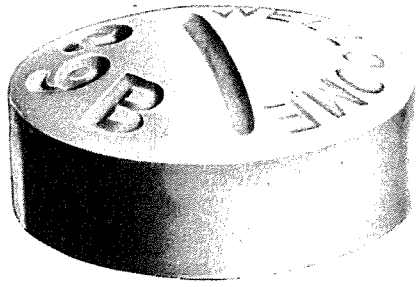
New Zyloric-300*

once-a-day dosage in gouty arthritis



The proven advantages of ZYLORIC*

ZYLORIC, a product of Wellcome research, offers a radical approach to the treatment of disorders characterised by excess uric acid, such as gouty arthritis. By controlling the production of uric acid biochemically, it lowers both serum *and* urinary uric acid levels. Thus, apart from the more clinically obvious benefits of relief of joint discomfort, increase in joint mobility and decrease in size of tophi, ZYLORIC also significantly reduces the hazard of kidney damage and stone formation. Moreover, because of its sparing effect on the kidneys, it controls hyperuricaemia even in patients with impaired renal function.

with the benefits of simplicity and convenience

Easier to remember, less chance of missing a dose – ZYLORIC-300 combines all the established and unique benefits of ZYLORIC therapy with the simplicity and convenience of once-a-day dosage in the treatment of gouty arthritis and excess urate disorders. Continuing Wellcome research has shown that, because of its inherent long action, a single dose of ZYLORIC provides a whole day's therapy without the need for sustained release technology. Wellcome discovered that ZYLORIC is largely converted in the body to a long-acting metabolite which extends the therapeutic effect to a full day. New ZYLORIC-300, with more likelihood of maximum patient co-operation and maximum therapeutic response, adds up over the years to better control of excess uric acid.

Easier to remember – more likely to succeed!

Each ZYLORIC-300 tablet contains 300mg allopurinol
ZYLORIC is also available as tablets each containing 100mg allopurinol

Additional information is available on request

The Wellcome Foundation Ltd Berkhamsted Herts England

Wellcome

Trade mark*

GMD/M/4/74-13

Editor's Letter

Medi-Scope Issue No. 4 Oct-Dec 1983

Medical Students Journal
University of Malta Medical School
G'Mangia.

This quarter's issue, the Christmas number, has as its principle interest the handicapped people to which the proceeds will go. As I have stated in the last issue's letter, the Editorial Board encourages readers to spare a few extra cents each so that the total amount collected will be given to the residents at ***Id-dar tal-Providenza*** in ***Siġġiewi*** as a *Christmas Donation* from Medical Students, Doctors, and Staff of the Medical School. ***Medi-Scope*** will thus serve an additional purpose during its existence. In this context, I cannot but praise Miss Josephine Cuomo for her invaluable work with and total dedication towards this sector of our society. Her noble gestures and vast experience motivated me to ask for articles (concerning the handicaps) which she gladly supplied. I thank her, on behalf of us all, for her help in this regard. I am certain that her *tips* will be valuable and her advice followed.

We have recently designed a sticker which bears the name and emblem of our magazine. The lettering and the design are embellished in gold with a background in black similar to the front cover (at least up to the time of writing). The stickers are available at 10 cents each and proceeds will be be included in the Christmas Donation mentioned above.

Mr. Godfrey Farrugia has been the second member of the Editorial Board to resign. He is now the Medical Students' representative on the Faculty Board and his efforts in this regard demand a great deal of his time. Though we shall miss his ardent help, his resignation is most justified and we thank him sincerely for his co-operation.

As everyone can see, the editorial board is now composed of only four members. It is clear that more members are desired not only to replace those who resign but also to help in future issues since much work is involved and the burden can only be made lighter and more pleasant if an additional number of students join us. Three of us will hopefully be commencing the fifth (and final) year of the course and new members are urgently required. We do wish to see the students' magazine thrive and we are certain that the feeling is mutual.

Finally, we wish all medical and paramedical workers a very Happy Christmas and a New Year full of happiness and success. We extend our greetings to the advertisers and the staff at Dormax Press Co. Ltd.

THE EDITOR

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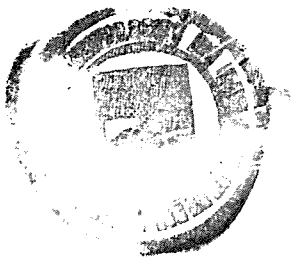
Low Set Ears in the Newborn

ANNA MAGRI MEDICAL STUDENT
ISABELLE MICALLEF MEDICAL STUDENT
MARCELLE MICALLEF MEDICAL STUDENT
ANTON MIFSUD MD



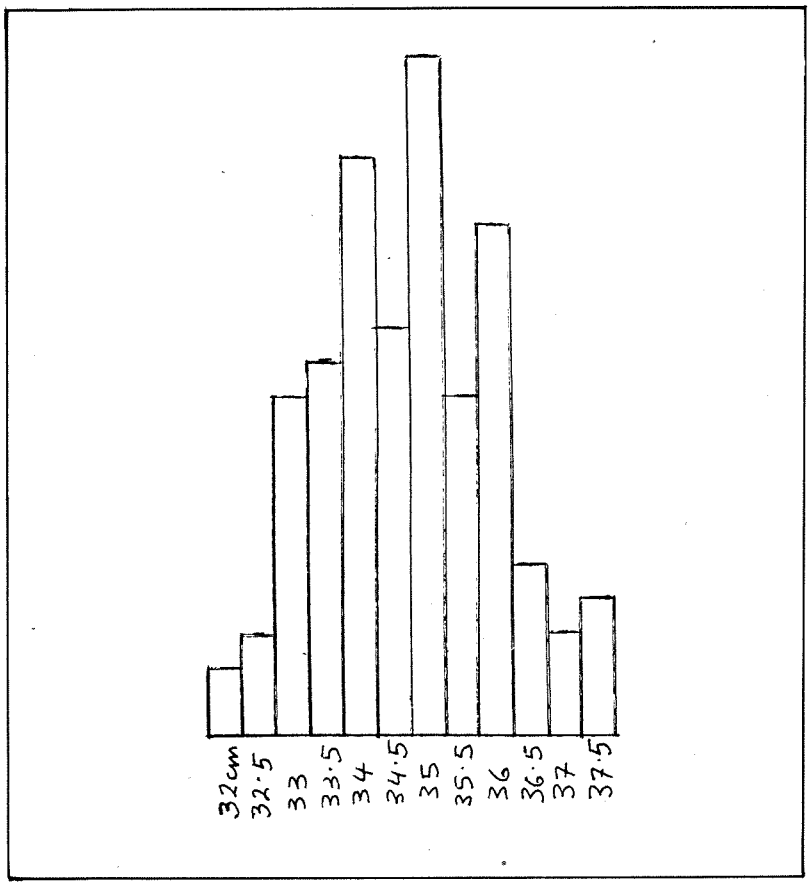
There are a number of congenital anomalies which, although not possessing any inherent significance, yet are usually of some diagnostic help through their frequent association with major abnormalities, which, in their turn may not be readily obvious at the time. Thus, for example: café-au-lait spots may be associated with such a variety of abnormalities such as neurofibromatosis, pulmonary stenosis, ataxia-telangiectasia, polyostotic fibrous dysplasia and tuberose sclerosis. The presence of a single umbilical artery should lead to investigations to exclude congenital defects of the heart, alimentary and genito-urinary systems, and skeletal anomalies. Abnormalities of the ears are commonly associated with kidney pathology; it is interesting to note that certain drugs such as the aminoglycosides are both potentially nephro-and oto-toxic.

Although published figures exist for various bodily features, (Feingold, Holmes, Smith) the question of low-lying ears poses some difficulty in that criteria for its diagnosis are not so well established. An imaginary line is usually made to run from the lateral canthus of the eye on to occipital protuberance at the back of the skull, and its relation to the ear taken as the point of reference.

Considerable amount of time was spent in order to take correct measurements of ear setting; a standard technique was utilised in a hundred neonates aged between a few hours and 3 days. The newborns were selected from the nursery at Karin Grech Hospital in order that the study would only include normal babies, and all neonates in whom the possibility of disease was suspected were excluded. The gestational age ranged between the 35th and the 41st week of gestation; this was recorded with the reading, as was also the occipito-frontal circumference and the birth-weight.

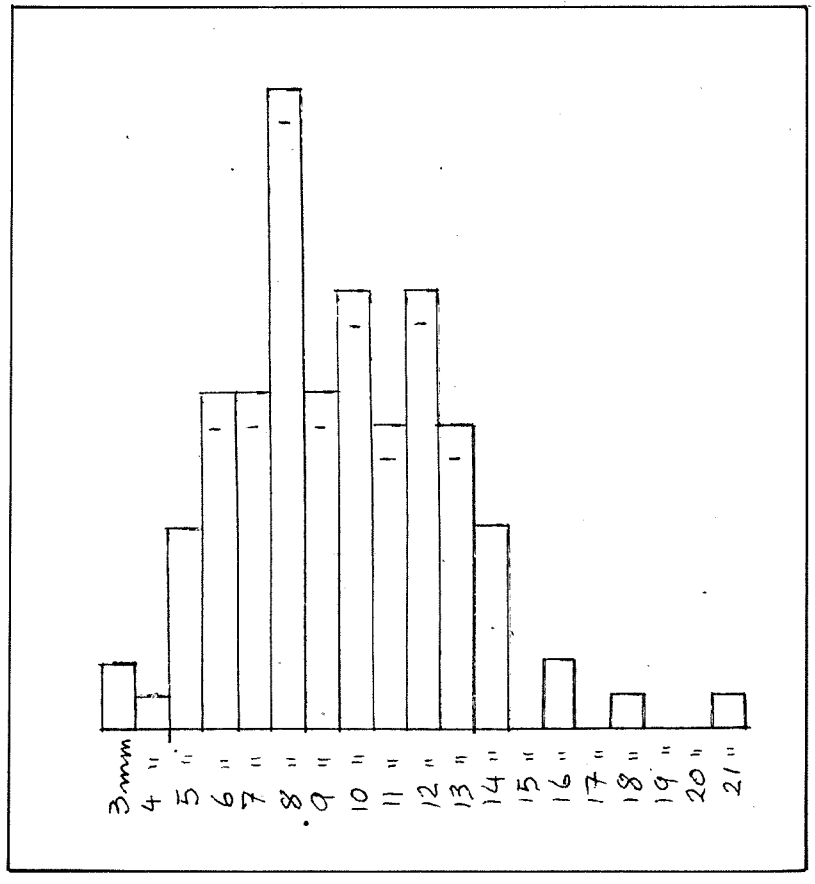
Fifty infants of each sex were studied and the results were compared with other parameters and charted on scattergrams. The site on the ear which was being measured from the imaginary occipito-ocular line was the upper border of the external auditory meatus. Plastic, transparent and pliable rulers such as are normally found in exchange transfusion sets were used to delineate this occipito-ocular line, and this facilitated its measurement from the superior border of the external auditory meatus. The left ear was the one chosen in all the measurements. A certain amount of restraint was required to maintain the infant in a favourable position during the reading.

Table 1 shows the distribution of occipito-frontal circumference in both sexes; here a mean of 35 cm was recorded, whilst the range extended from 32 to 37.5 cm. As all the infants studied were under three days of age, a small allowance for an increased occipito-frontal circumference (OFC) has to be made because of scalp oedema in the first few days of life. It is in fact a constant observation in the SCBU, where the infants' OFC is regularly measured, that there is a



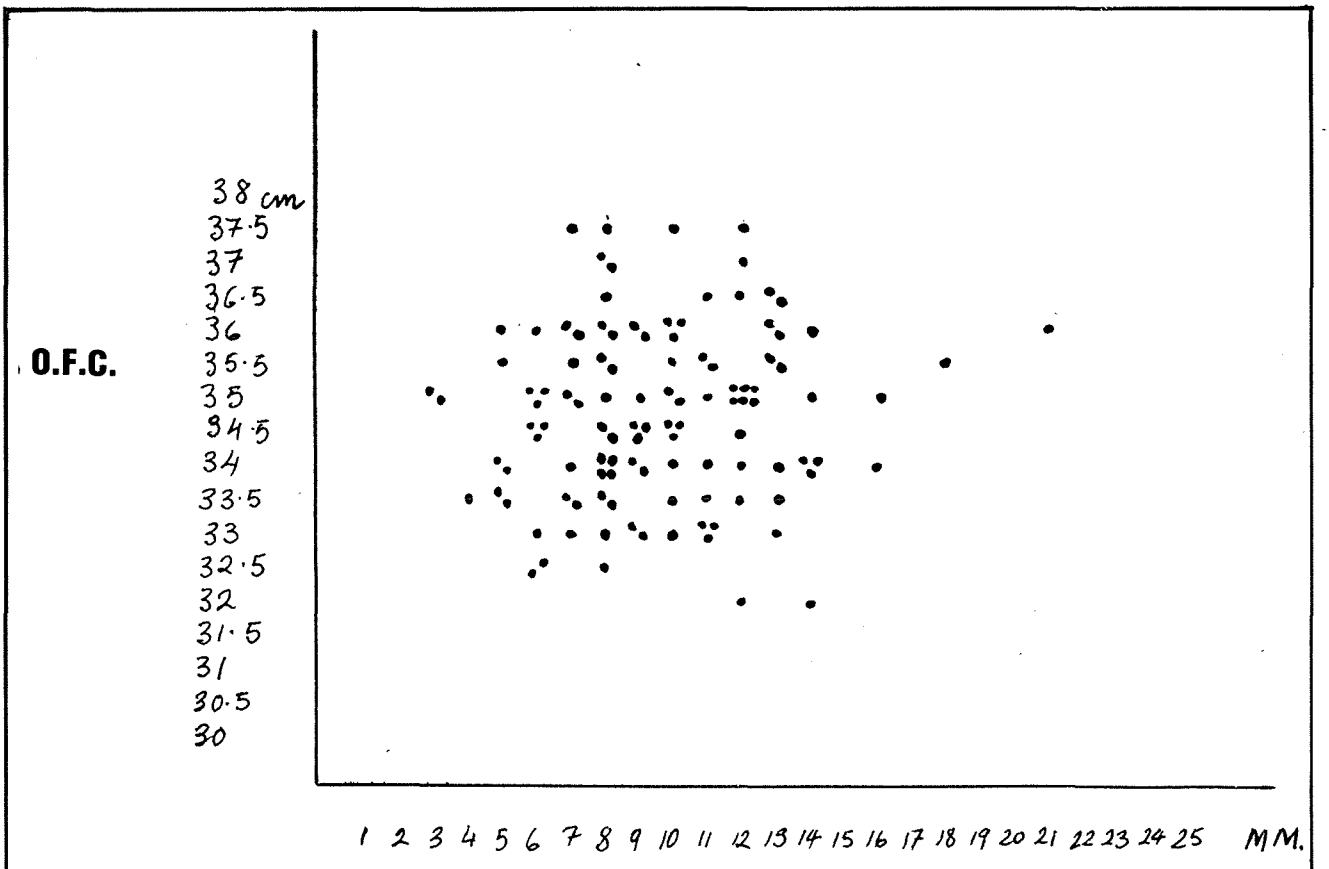
OCCIPITO - FRONTAL CIRCUMFERENCE

TABLE 1



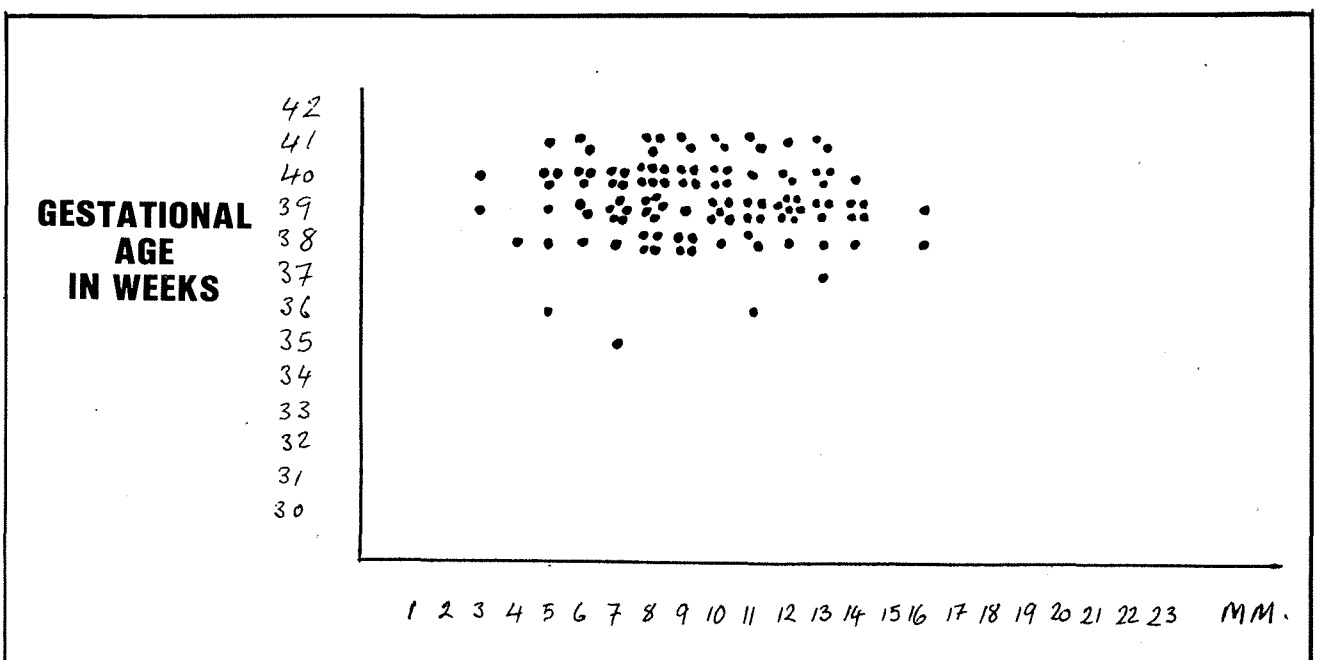
AUDITORY MEATAL SETTING

TABLE 2



AUDITORY MEATAL SETTING

TABLE 3



AUDITORY MEATAL SETTING

TABLE 4

small decrease in head circumference over the first few days of life and is in the order of between 0.5 and 1 cm. This tallies with accepted standards of normality in neonatal occipito-frontal circumferences, which in most charts range from 31 to 37 cm with a mean of 34 cm at birth; these reading apply for full-term infants.

Table 2 shows the distribution of the actual measurements of the distance from the upper border of the ear to the occipitocular line. The most constant measurement in females is 8 mm whilst the distribution in males is spread out between 5 and 14 mm. There was one infant with a reading of 2.1cm but investigations to rule out associated anomalies were negative. At the other end, the minimum reading was 3 mm.

Table 3 is a scattergram comparing occipito-frontal circumference with auditory meatal setting; the larger hollow circles represent the average measurement of the latter reading for each OFC. This demonstrates that the occipitofrontal circumference exerts only a mild influence on the auditory meatal setting in a direct relationship. The mean range of measurements for all occipito-frontal circumferences lies between 6 and 12 mm.

The auditory meatal setting was finally plotted against gestational age and this is shown in Table 4 in scattergraph form. The mean measurement for gestational age between 38 and 41 weeks of gestation lies just above 9 mm. These results tally with those obtained in the previous scattergram, and it would therefore seem justifiable to accept a mean of 9 mm and a range lying between 3 and 16 mm. It is with readings approaching or exceeding the latter that a careful search should be made for pathology, particularly if other features are present, such as the Potter facies of renal agenesis or the skeletal and facial abnormalities of Trisomy 13 and other chromosomal anomalies. These conditions are fortunately not common, so that it will be quite a while before a sufficient number are collected for comparison with our normal controls in order to assess their reliability and usefulness.

References

Feingold M., Bossert W.H. Normal Values, Birth Defects Original articles series 10(13):1, 1974

Holmes L.B., *The Malformed Newborn: Practical Perspective.* Boston Massachusetts Developmental Disabilities Council 1976.

Smith D.W. *Recognisable Pattern of Human Malformation* (2nd Ed.) Philadelphia. Saunders, 1976.

New Drugs for Heart Failure

BERNARD ROLAND
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UNIVERSITY HOSPITAL SAINT-PIERRE,
BRUSSELS.

RENARD MARC
RESIDENT OF THE CCU.

I. Effect of Heart Failure on Preload and Afterload

Adaptation or compensatory mechanisms generally conceal the clinical signs at the beginning of heart failure (Starling's law). When these mechanisms are exceeded, heart failure may be objectivated: there is an increase in the left ventricular diastolic pressure, and if failure is severe, cardiac output decreases. These haemodynamic changes affect preload and afterload and are responsible for the clinical signs of heart failure.

A. Effect on preload

The elevated left ventricular diastolic pressure is transmitted to the lungs via the left auricle and the pulmonary veins; lung congestion is responsible for dyspnoea (more severe as heart condition deteriorates); right heart failure may then follow left heart failure.

B. Effect on afterload

As an adaptative mechanism to a decrease in cardiac output there is an increase in the sympathetic tone (sympathetic drugs have a positive inotropic action on the myocardium) with tachycardia and peripheral vasoconstriction, which increases the afterload; this mechanism helps to maintain the blood pressure but at the price of a high energical cost (myocardial oxygen consumption increases). When this mechanism fails, the cardiac output decreases with secondary effects: fatigue, postural hypotension, decreased diuresis (with salt and water retention), etc...

II. Treatment of Heart Failure

The classical treatment includes diuretics, digitalis, low salt diet, rest. We intend to review briefly some of the new approaches of heart failure treatment. These new drugs may increase myocardial contractility; others have a venous or an arteriolar vasodilating effect; some have several sites of action.

1. Drugs Increasing Myocardial Contractility

A. Sympathicomimetic drugs

DOPAMINE

At low doses (2-3μg/kg. min), dopamine shows a positive inotropic action, with an increase in diuresis (increased renal flow), and only a little or no arteriolar vasoconstriction. With high doses, the diuresis is not always increased, and an arteriolar vasoconstriction is observed, inducing high peripheral resistances (afterload) and increasing myocardial oxygen demand!

Administration: continuous infusion(2-3 μg/kg min). Haemodynamic monitoring is preferable, but not mandatory.

Adverse reactions: tachycardia, arrhythmias, angina, arteritis, nausea.

Indications: shock, refractory heart failure with fluid retention.

DOBUTAMINE

In comparison with dopamine, this synthetic beta-adrenergic agent does not increase the heart rate to the same extent but has the same effect on cardiac output. The renal effect is much less evident. Dobutamine induces arteriolar vasodilation, thus decreasing the afterload.

Administration: continuous infusion (2.5 to 7.5 μg /kg. min) Haemodynamic monitoring is preferable but not mandatory.

Adverse reactions: tachycardia, angina, nausea.

Indications: refractory heart failure, when afterload is a *"plus point"*; in some cases of myocardial infarction with severe heart failure (refractory to vasodilators or to usual drugs).

SALBUTAMOL - PIRBUTEROL

These drugs may be given orally but it is too early to state yet what will be the place of these drugs in the treatment of heart failure.

B. **Other drugs**

AMRINONE

Amrinone increases the cardiac output, reduces the pulmonary wedge pressure, with variable evolution of the heart rate and the blood pressure. It may be given orally and intravenously. Cases of thrombocytopenia are reported after amrinone.

SULMAZOL (AR-L 115)

This new drug, not yet commercially available, is of great interest. The positive inotropic action is potent; in most of the cases heart rate is not increased and arteriolar vasodilation is observed, a good answer to most of the prerequisites of the *"ideal drug"*. Furthermore, it may be given orally or intravenously. More experience is needed to evaluate the side effects.

2. **Vasodilating Drugs**

A. **Venous vasolidating drugs**

The purpose is to lower the venous return to the heart, decreasing the pulmonary wedge pressure (preload). Such an effect is obtained with diuretics (reduction of blood volume), tourniquets, bleeding. The venous dilating drugs are pooling blood at the periphery.

FRUSEMIDE

Apart from the well-known diuretic action, frusemide induces venous dilation, and a very effective pooling when given intravenously.

INTRAVENOUS NITRATES

Given intravenously (nitroprusside, trinitrine) they are very powerful, nitroprusside showing also an effect on the arteriolar side. They induce generally some degree of tachycardia. Due to their very potent action, haemodynamic monitoring is mandatory.

ORAL NITRATES (trinitrine, isosorbide dinitrate)

They induce venous pooling with some arteriolar reaction; acceleration of the rhythm may be observed. Due to the short duration of action (about 4h for isosorbide dinitrate), 20, 40 or 60 mg are to be given 6 times a day. Nitrates may also be given by cutaneous ointment.

B. **Arteriolar vasodilating drugs**

The aim of these drugs is to reduce peripheral resistance, facilitating the left ventricular emptying, increasing the systolic output (and cardiac output). If the heart rate remains stable, this result is obtained without an increase in the myocardial oxygen demand. The use of these drugs should be avoided in severe hypotension, and the blood pressure has to be checked.

PHENTOLAMINE

The alpha-blocking effect of phentolamine is responsible for a clear arteriolar vasodilation with some venous action too. The effect is comparable to nitroprusside but the impact on afterload is more potent (increase in cardiac output), with less effect on pulmonary wedge pressure.

Phentolamine has to be given by continuous venous infusion (10-40 mg/h). Monitoring of Haemodynamics is preferable, however, heart rate and careful peripheral blood pressure observations are usually sufficient.

HYDRALLAZINE

Hydrallazine acts directly and almost only on the arteries. This oral drug has to be given at increasing doses (25 to 50 mg, 3 to 4 times a day); the limiting signs are tachycardia and a fall in blood pressure (some decrease may be very useful). Lupus and polyneuritis were reported after long term treatment with high doses.

PRAZOSIN

The alpha-blocking effect of prazosin results in a balanced arterial and venous vasodilation, affecting preload and afterload. Given orally, the first doses are to be given in the evening (0.5 mg) to avoid hypotension. The dose is progressively increased till 2 to 5 mg. four times a day.

Headache, vertigo, orthostatism, tachyphylaxia are reported.

CAPTOPRIL

This new hypotensive drug (inhibiting the renin-angiotensin system) seems to be very promising in heart failure; low doses are to be given (12.5 or 25 mg, 3 times a day). Cutaneous rash has been reported.

III. **Conclusions and Summary**

Drugs increasing myocardial contractility have a drawback: the increased myocardial oxygen demand. This may be a problem in ischaemic heart disease. Nevertheless, research in this area shows a clear improvement: dobutamine has also a vasodilating action, Sulmazol avoids the increase in the rate and is also an interiolar vasodilating drug! These drugs may be very useful in severe cardiac disease, particularly when hypotension prevents the use of vasodilating drugs.

Venous vasodilating drugs will affect mostly the preload, with a reduction in the pulmonary wedge pressure relieving dyspnoea. Given intravenously, this very powerful activity necessitates haemodynamic monitoring; fortunately, the oral drugs are effective, but high doses are needed and due to short action, they are to be given approximaely four hourly.

Arteriolar vasodilating drugs reduce peripheral resistances (afterload), increasing the cardiac output without increase in the myocadrial oxygen demand.

Some of these new drugs have several sites of action: venous and arteriolar vasodilation (Prazosin), myocardial contractility and arteriolar vasodilation (Dobutamine, Sulmazol). They may also be given simultaneously, to act on preload, contractility and afterload.

Nevertheless, diuretics, digitalis, low salt diet and rest remain the basis and the first steps in the treatment of heart failure. The other oral drugs are given if necessary to reach a better result (sometimes digitalis is poorly tolerated or should even be avoided as in actue myocardial infarction). The use of all intravenous drugs is to be restricted to patients refractory to the usual approach.

Cutaneous Leishmaniasis in Gozo

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FLORIANA, MALTA.

Leishmaniasis is caused by a protozoon which has a flagellate (promastigote) stage in the sandfly and an ovoid (amastigote) stage in human tissues. Three species of Leishmania are generally described although morphologically they are identical:

(a) **Leishmania donovani,** producing
1. Visceral leishmaniasis (Kala-azar)
2. Post-kala-azar dermal leishmaniasis

(b) **Leishmania tropica,** producing
3. Cutaneous leishmaniasis

(c) **Leishmania braziliensis,** producing
4. Mucocutaneous leishmaniasis

Kala-azar is endemic in the Maltese islands, and post-kala-azar dermal leishmaniasis has been recorded at least once. However, this is the first description of primary cutaneous leishmaniasis acquired locally.

Hisotory

J.G., a 17-month old girl from Għajnsielem, presented in May 1983 with a 7-month history of a painless, bluish-red nodule on the right cheek which ulcerated after 5 months. Tetracycline and chloramphenicol had been applied locally without success. There was no previous history of Kala-azar, and she had never been abroad.

Examination

The nodule was approximately 13mm in diameter (Figure 1). The ulcer was 6 mm across and it was covered with a crust. The draining lymphnodes were not enlarged. The girl's general condition was excellent. There was no enlargement of lymphnodes, liver or spleen.

Investigation

Microscopy of a slit-skin smear from the edge of the ulcer revealed typical amastigotes inside and outside histiocytes. The leishmanin skin test was positive.

Treatment

Sodium Stibogluconate BP (Pentostam, Wellcome) 0.25ml/kg bodyweight was injected intramuscularly in the buttock area once daily for 14 days. The lesion healed slowly with complete disappearance of the crust and induration. The ulcer was replaced by a depressed scar and pink discoloration of the area persisted for several weeks after. Treatment produced no clinical side-effects and her haemoglobin and white cell count remained unchanged during the course of treatment.

Comment

Since my return to Malta in April 1982 I have made a clinical diagnosis of classical cutaneous leishmaniasis in an additional 7 patients (Table 1). They all came from Gozo. The lesions were usually single and on the face. A typical granulomatous infiltrate was present in the four patients from whom a skin sample was taken, but it was not possible to demonstrate amastigotes in tissue sections stained with Giemsa or Leishman's stain. However, they were demonstrated in the slit-skin smear of patient F.G.. The leishmanin skin test was positive in the two patients tested.

I cannot account for the fact that cutaneous leishmaniasis was not reported earlier. Lesions may heal spontaneously and they may therefore have been dismissed as ordinary insect bites. The fact that the disease seems to be limited to Gozo suggests recent importation. It is important to recognize the disease because treatment, although difficult, may prevent unsightly scars. Further research will be aimed at culturing the parasite with a view to serological typing, identifying the animal reservoir, and a study of the relative efficacy of different therapeutic approaches including rifampicin plus isoniazid. Public health measures should be aimed at eliminating the breeding places of the sandfly, and the destruction of infected animals.

Acknowledgements

The slit skin smears were examined by Dr. Mifsud of the cytology department, St Luke's Hospital. The histological sections were prepared and examined by the histopathology department of the same hospital. The leishmanin reagent was kindly donated to me by Dr. D.Evans of the London School of Hygiene and Tropical Medicine.

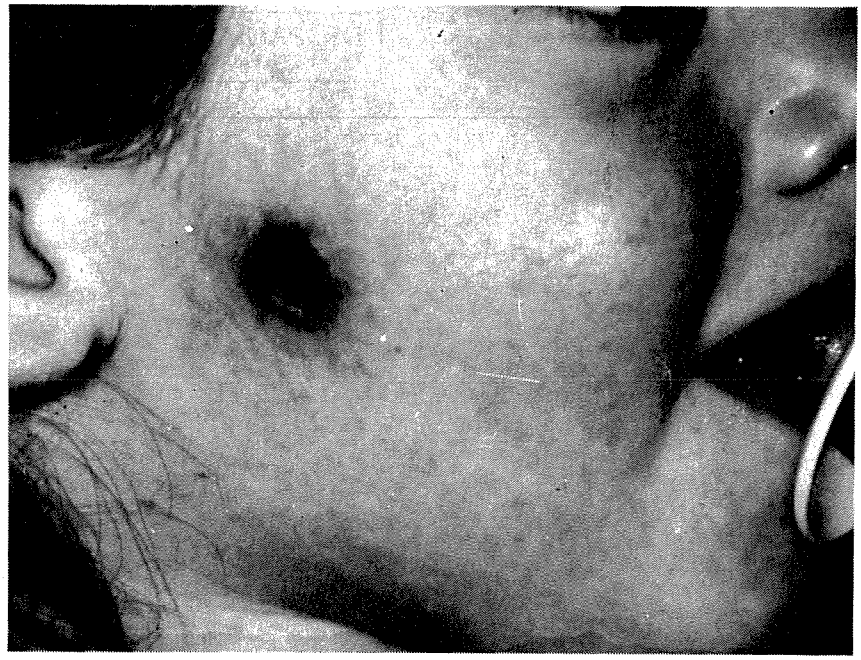

Figure 1. Typical cutaneous leishmaniasis. Amastigotes were present in a slit-skin smear from the ulcer's edge.

TABLE 1: **Details of 7 patients with suspected cutaneous leishmaniasis**

Patient	Sex	Age	Residence	Site	Duration (months)	Histology	Slit-skin smear	Leishmanin test
FG	F	65	Qala	cheek	6	granuloma	positive	positive
SM	F	2	Nadur	eyelid	5	not done	negative	positive
MM	M	50	Victoria	foot	1	granuloma	not done	not done
CS	F	23	Qala	shin	18	granuloma	not done	not done
LE	F	10	Victoria	cheek	?	granuloma	not done	not done
AD	M	7	Xagħra	cheek	10	not done	not done	not done
MC	F	67	Nadur	leg	12	not done	not done	not done

Some Early X-Rays Photographs taken in Malta — A Postscript

DR. PAUL CASSAR MD, BSc, DPM, FRHistS.
HON. FELLOW OF THE UNIVERSITY OF MALTA

In a previous survey of radiology in Malta (Cassar, 1972), I reported experiments with X-rays carried out in Malta towards the close of the ninteenth century by Dr. (later Professor) Themistocles Zammit and by Mr. John Ellis of the photographic firm Richard Ellis at 43, Strait Street, Valletta.

In the caption to the published X-Rays photograph of a normal hand, signed by Dr. Zammit and dated *September 96*, I stated that this photograph was the earliest dated X-rays photograph known, until then, to have been produced in the island. Thanks to new evidence I have now firmly established that Dr.Zammit had taken at least one earlier X-Rays photograph which he signed and dated 27th August 1896. On this occasion the objects appearing in the X-rays are not of a medical kind but consist of a number of still-life items, i.e. a pince-nez, three rings, two coins and four pins. Apart from the date, the plate bears the words *P.H.D. Laboratory Malta.* (Fig.1) There exists another X-rays photograph (not reproduced here) showing an open hand and the same date and wording but no signature. The handwriting, however, is that of Dr. Zammit.

As a point of interest attaching to dates, it may be recalled that in the United Kingdom the first X-rays photograph - a human hand - was taken within a week of Röntgen's announcement, on the 6th January 1896, of his discovery of X-rays to the world *(Brit. Med.J.1945).* In Hanover an X-rays photograph of various small objects in a cigarette case is recorded as having been taken some time in March 1896 *(Brit. Med.J, 1954).*

In a letter of the 5th November 1896 (Cassar, 1972), Mr. John Ellis stated that he had taken X-rays photographs of:

(a) an aluminium cigarette case containing a gold chain and ring:
(b) a tortoise-shell money case, silver mounted and with initials, containing two gold coins;
(c) a cardboard case with silver bicycle warrant;
(d) a wooden box with a silver coin and gold ring;
(e) a leaf of which only the fibres were visible; and
(f) a (human) hand with a "cut finger"

None of these early X-rays photographs taken by Mr. Ellis have been traced but ten *variants* of them - and a few additional ones - have come to light.

Five of these *variants* are here described and reproduced:-

(i) Fig. 2. Here are shown:

(a) a cigarette case containing a chain, a ring and scissors. This is a variation of the aluminium cigarette case with gold chain and ring mentioned by Mr. Ellis;
(b) a small case with a monogram and coin which recalls the tortoise-shell silver-mounted money case with initials and gold coins listed in Ellis's letter;
(c) a small box with two nibs and a wheel-like object;
(d) another small case containing a key, a ring and a coin similar to the wooden box with silver coin and gold chain referred to by Mr. Ellis.

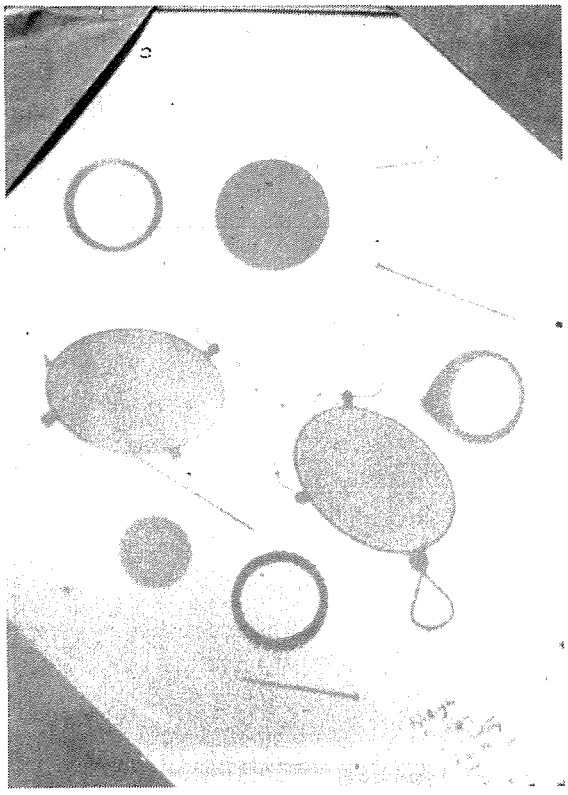

Figure 1

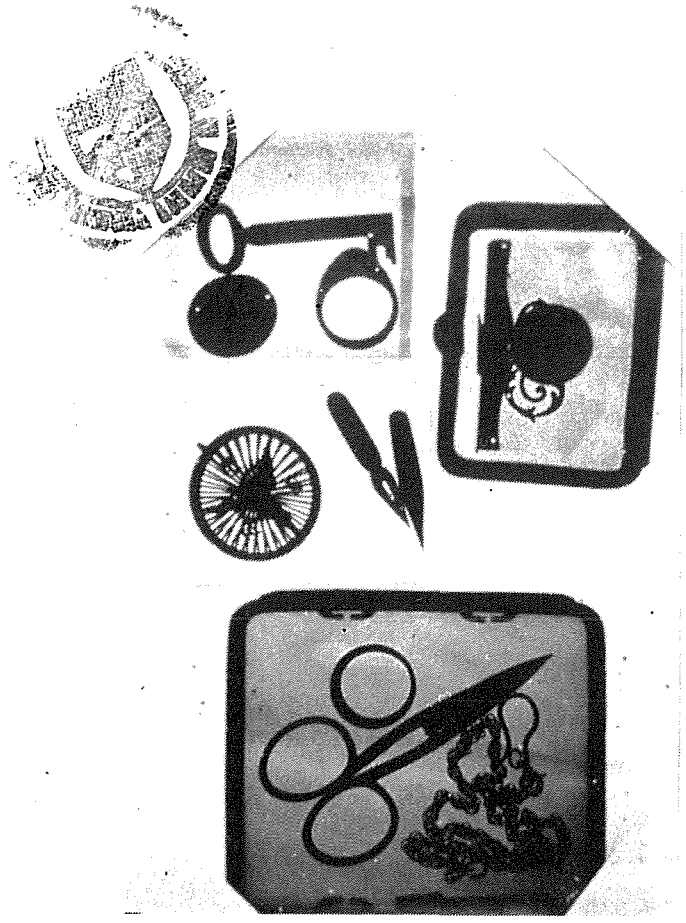

Figure 2

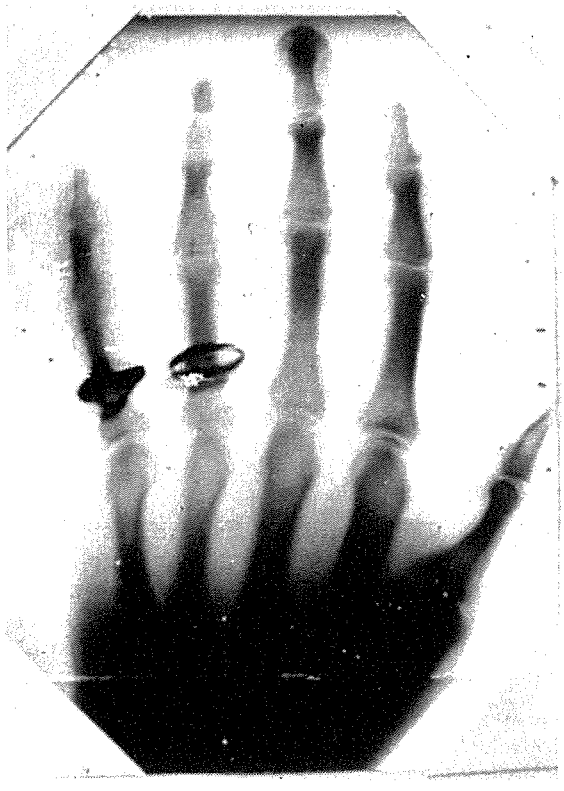

Figure 3

Figure 4

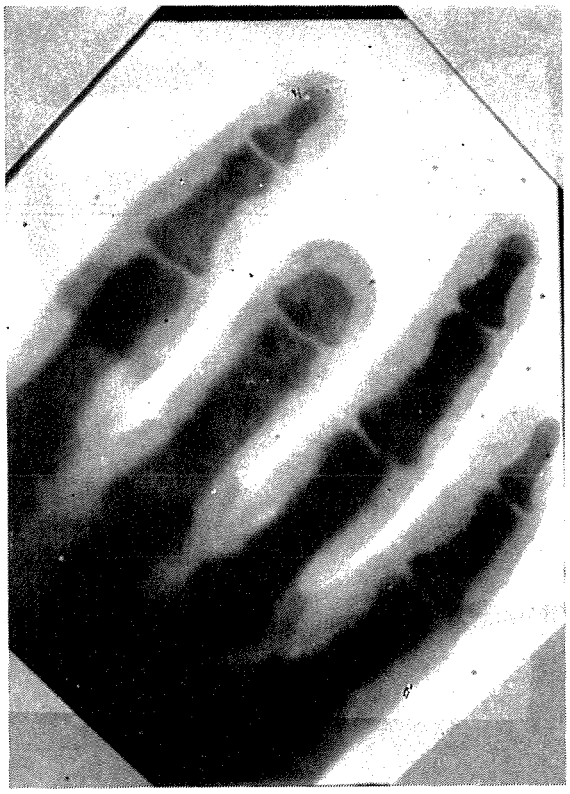

Figure 5

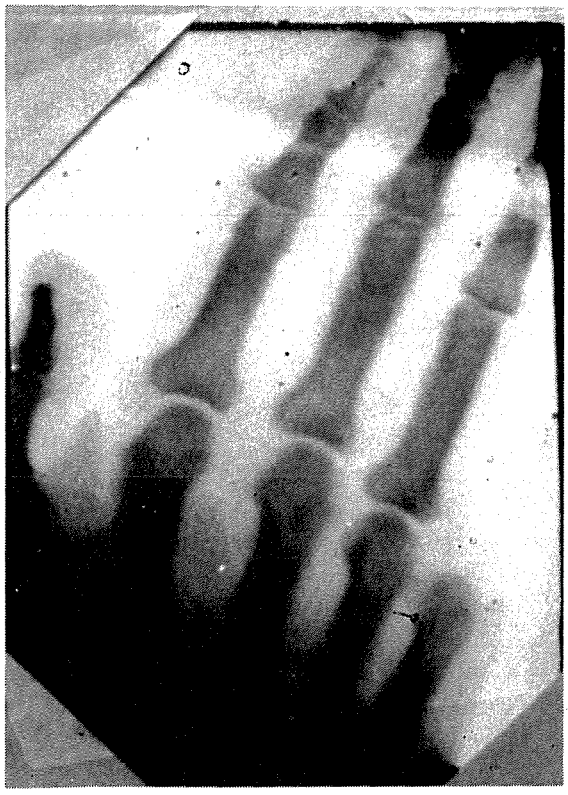

Figure 6

(ii) Fig. 3. A human hand with a ring on the little finger and another one on the ring-finger. The slenderness of the fingers suggests that it may be the (left) hand of a woman.

(iii) Fig. 4. A human wrist showing the carpal bones, the lower end of the radius and ulna and part of the metacarpus.

(iv) Fig. 5. Portion of human hand with the end of the terminal phalanx of the middle finger missing; very probably amputated either surgically or accidentally.

(v) Fig. 6. Another human hand with the little finger missing, very likely removed surgically.

Figs. 5 and 6 are of special medical interest as they are, so far, the earliest X-rays photographs showing a pathological condition known to have been taken in Malta. Mr. Ellis lists a photograph with a "cut finger" in the letter already referred to (see (f) above). The identity of the sitter/s is not known.

From the technical angle all these photographs have been judged to be of a very good quality in view of the very primitive equipment with which they were produced (Zammit, 1973).

All Mr Ellis's photographs are undated and unsigned but it is likely that they were made at the end of October or early November 1896; indeed he refers to previous experimental *copies done by the X-rays* in his letter of the 5th November quoted above (Cassar, 1972). If this surmise regarding dating is correct then Dr. Themistolces Zammit still retains his priority as the pioneer who blazed the trail in the radiological field in Malta with his photos of the 27th August and of *September 96.*

Acknowledgements

I am greatly indebted to Mr. Richard Ellis, Rabat, for allowing me to study these photographs; to Dr.F. Zammit and Dr.E. Mercieca, formerly of the Radiology Department, St. Luke's Hospital, Malta, for their comments on the photographs; to Captain C. Zammit for the photograph by Dr. Them. Zammit.

References

British Medical Journal (1945), **2**, 608

British Medical Journal (1954), **2**, 469

Cassar, P. (1972), *The St. Luke's Hospital Gazette,* 1972, 7, 108.

Zammit,F. Personal communication, 1973.

Cardiac Experience at St. Luke's Hospital From 1966 to 1983

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I first visited St. Luke's in 1966 and for some years previously 'screened' Maltese patients referred to U.K. for possible cardiac surgery. As they came individually, accompanied by a doctor and nurse, I proposed that it might be more economic if I saw a large number by paying a visit to Malta. The High Commission in London doubted if I would have more than six patients so I only arranged to stay two nights and one day. I still recall 7 p.m. that one day, when after seeing 30 plus patients and feeling distinctly hypoglycaemic, Dr. Captur arrived with a contingent of seven cyanosed children with complex, congenital heart lesions to round off my day's visit. Thereafter, these visits have lasted a week during which time I have been reviewing 200-240 patients annually. My surgical colleague Mr. Bromley started accompanying me to review postoperative patients, and now his successor, Mr. Rex Stanbridge, has taken over this task. As of 1983 I have also called in Dr. Hallidie Smith as well to help with paediatric cardiology.

Over the years I have seen a total of 1729 new patients and up to the end of 1981, 579 had been operated, mostly by Mr. Bromley at St. Mary's.

My figures show how congenital and rheumatic heart disease then dominated the cardiac surgical scene (Fig.1).

Rheumatic mitral stenosis was the single commonest cardiac surgical condition encountered and 185 were operated on by the closed technique using a Tubbs dilator, with only one death, (170 being first operations). Rheumatic fever used to be both common and severe in Malta causing tight mitral stenosis at a younger age than was initially encountered in the U.S. or U.K. at the time mitral valvotamy was first started. Fig. 2 shows the changing pattern of rheumatic mitral stenosis over these years in Malta, by comparison with the earliest large series from U.K. The first four year period shows the large proportion of youngsters needing operations; and only in the second four year period did it compare with the initial Edinburgh experience. Now it resembles any European series. Unfortunately, operation at an early age usually leads to restenosis from continuing low grade rheumatic activity and 14 from this series needed second operations. The bottom line showing the numbers of new patients referred, illustrates the declining problem of mitral stenosis over this period of time. A number of patients with mitral stenosis have never developed sufficient disability to justify surgery, and the same is true of mitral regurgitation and aortic valve disease. Surgery in these last two conditions carries the additional hazard of life-long anticoagulants in the presence of valve prostheses. Therefore, I am fairly conservative in these conditions, many of whom remain under regular observation, unoperated. In aortic valve disease we have operated on 31/85, mitral regurgitation 31/112 and multiple severe valve diseases only 5/32 patients.

Congenital heart disease however, has remained a fairly constant population comprising 46% of all new patients seen every year, the only difference being a drop in the proportion of cyanotics by half. Presumably an initial 'backlog' was present. The prevalence of the different types of congenital heart disease and the numbers operated are shown in Fig. 3. The different proportion needing surgery is of interest, although it must be remembered, as in all populations, some refused operation when it was advised - notably in patent ductus. However, only a quarter of V.S.D's came to operation compared with 60% of A.S.D's. This reflects the frequency of spontaneous closure in the former condition. In both pulmonary and aortic stenosis, many were only of mild degree and often needed cardiac catheters to confirm one's clinical impression.

The large 'miscellaneous' group included many with heart block requiring pacing, at that time not being practised at St. Luke's, as it is now. Tachyarrhythmias and cardiomyopathies have remained a constant 2% each year of the populations referred. Coronary artery disease was rarely seen in the early days but has been referred in increasing numbers over the past two years. Thus, from 1974-1979 I saw only 21 coronary patients. Now that coronary bypass grafting has become the most common cardiac surgical procedure, I am sure the Maltese referrals will continue to increase.

Total Maltese patients seen 1966 - 1981

	Nos	Operations
Congenital Heart Disease	784	279
Rheumatic Heart Disease	451	252
Miscellaneous	253	48

Figure. 1.

Mitral Stenosis (first operations)

Ages	'66-'69	'70-'73	'74-'77	'78-'81	Logan & Turner Edin. 1953
< 20	19%	2%	5%	0	1%
20-39	63%	63%	32%	35%	58%
40 +	18%	35%	63%	65%	41%
Total patients:	51	64	41	14	100

Figure 2.

Congenital Heart Disease ('66-'81)

	Nos		Operations
Ventricular Septal Defect	254	(31%)	60
Atrial Septal Defect	100	(13%)	62
Patent Ductus	29	(4%)	24
Pulmonary Stenosis	76	(10%)	28
Aortic Stenosis	81	(10%)	16
Coarctation of Aorta	30	(4%)	25
Mitral Regurgitation	39	(5%)	0
Other Acyanotic C.H.D.	84	(11%)	0
Fallot's Tetralogy	59	(8%)	56
Other Cyanotic C.H.D.	32	(4%)	8
Totals:	**784**		**279**

Figure 3.

Systemic Lupus Erythematosus

Yet Another Rare Presentation

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Clinical Descriptions

A 14 year old girl was first seen at Karen Grech hospital for complaints of fainting attacks along with occasional convulsions and a progressive depressional state. She was seen by a psychiatrist who thought she had psychomotor retardation and was 'handicapped'. Concurrently, she had complaints of painful and stiff knees, ankles and wrist joints - especially during the morning hours. This went on for sixteen weeks during which period the girl's mental state deteriorated further with her having 'hysterical behaviour' at times, and suicidal tendencies. Her initial resentment of going to school increased and she had finally stopped going altogether for over a month when she was admitted into the Children's Ward with a low grade pyrexia, mental confusion, deteriorating speech and difficulty in walking.

She was a full term baby at birth with a normal delivery in a hospital in Malta. Birth weight 7 lbs. She had no obstetric or neonatal problems and had suffered no significant illnesses in the past. She was never hospitalised before.

On examination at the time of her admission she appeared quite anxious and tense, talking very little and answering only with brief replies. She had a flushed face with a peripheral pulse of 100/min, regular and felt in all the limbs. Blood pressure 140/75 mmHg, oral temperature of 100 F. There was no significant finding in the Cardiac or respiratory system. A detailed neurological examination revealed exaggerated reflexes in all the limbs - more on the right side with down-going planters. Examination of the fundi showed a hypermetropic right disc while the left disc was normal but there was a 'cytoid body' at 11.00 o'clock position. There were no sensory changes and no signs of meningitis or encephalitis.

She also had painful ankles and wrists and had nodular lumps over the dorsum of both her hands. These lumps were present for the last 8 weeks. Hip joint movements were painful on both sides and she had tenderness of the cervical spine.

Detailed investigations revealed a positive Serum Antinuclear factor and L.E. Cells were present in peripheral blood. The R.A. test was negative, serum protein electrophoresis showed a raised level (of 2.9 gm/dl) of gamma globulin, while total proteins and albumin were normal. Serum Creatinine and B.U.N. and urinary excretion of Creatinine during 24-hour period were all normal. A.S.O.T., B.S.R., V.D.R.L. were all negative. E.S.R. was 100 mm in 1st hour (Wintrob). Plasma Cortisol, Serum Prolactin, Serum L.H. and F.S.H. were checked and found normal.

To Summarise

A 14 year old girl presented as case of ? front lobe lesion with history of progressive deterioration of memory, speech and gait. She also had vague joint pains and subcutaneous nodular swellings on both wrists. She had a high E.S.R. of 100 mm in 1st hour, positive L.E. cells and A.N.F. and she responded dramatically to oral steroids. She was rediagnosed as a case of Systemic Lupus Erythematosus.

Discussion

Systemic Lupus Erythematosus is a disease associated with auto-antibodies involving multiple organ systems. The brief list of possible manifestations in the major body systems is given in Table 1.

Table 1

Skin: Butterfly rash, diffuse skin rash, discoid lesions, oral ulcers, alopecia.

Joints: Symmetric tenderness, pain on motion, swelling.

Kidneys: Glomerulitis, Glomerulonephritis.

Serious Membranes: Pleurisy, pericarditis, peritonits.

Blood: Leucopenia, thrombocytopenia, haemolytic anaemia.

C.N.S.: Seizures, psychosis, mononeuritis.

The well remarked *'butterfly rash'* in S.L.E. is frequently absent, but diffuse erythematous skin rashes, discoid L.E. Lesions, or oral ulcers and partial alopecia are frequently seen. The majority of patients with S.L.E. will have one or more of these skin manifestations.

The joint disease is frequently described as *non-deforming* to indicate the difference between a rather mild synovitis and periarticular involvement typical of S.L.E., and the prominent pannus and synovial inflammation of rheumatoid arthritis. Arthritis in S.L.E., is nearly always symmetric and tends to involve essentially the same joints as rheumatoid arthritis. However, visible swelling if often not present, pain is prominent and if any deformity results it is likely to take the form of *Swan-necks* or subluxation, rather than erosive bony destruction.

The predominant features of the renal involvement is in the glomerulus and appears related to immune complex formation, deposition, and the subsequent inflammatory response. In later stages of Lupus nephropatly, arterial involvement, hypertension and uraemia are quite frequent. Renal involvement may be documented by renal biopsy, or by demonstration of proteinuria and appropriate sediment changes together with a low serum complement or antibody to D.N.A.

The commonest haematological finding is the anaemia, which is unfortunately, too non-specific to employ as a diagnostic criterion, but is a useful adjunct in assessment of the progress of the disease. Anaemia most commonly represents a production deficit and reflects the activity of the underlying chronic disease. Coombs positivity is fairly common. Also, some cases present as a thrombocytopenia for which, very rarely, splenectomy may be needed. Leucopenia, with a total white cell count of consistantly around 4000/mm^3 is seen in about one-third of cases.

In the central nervous system, the presenting features may be extremely variable and sometimes confusing. Fortunately, such cases with primarily C.N.S. features are very rare. Seizures and history of fits, sometimes serious emotional disturbances, eg: suicidal tendencies etc., and neuritis have all been documented in S.L.E.

As for the management of these cases, extreme caution should be taken in arriving at the diagnosis especially in patients presenting with complicated multi-system features. Having carefully assessed the patient together with as much of available laboratory reports as indicated, the patient should be commenced on drug treatment. Prior to that a detailed discussion with the patient and the family is essential and the doctor should make a frank attempt to inform them of the exact nature of the illness and its long range implications. In children, and adolescents, bed rest, although very difficult in most cases, will help in the initial phase of illness with painful joints and fever for which Aspirins are useful. Although some authorities advocate using non-steroidal preparations, eg: Indomethacin, the corner-stone of treatment is of course Corticosterodis in moderately severe and severe cases. Steroids are given orally for about 6 to 8 weeks at an approximate dosage of 1mg/kg/day in children - followed by a slow tapering over a 6 month period to half of that level and further reduction as possible. In general, the tendency in recent years has been to taper steroids much more rapidly, and the frankly Cushingoid child is now rarely seen in the out-patients.

Immuno-suppressant drugs, eg: azathioprine or cyclophosphamide treatment remains controversial, and is probably best reserved for specialised units and institutions and the individuals should be thoroughly aware of the inherent hazards of treatment with such drugs.

Acknowledgement:

I am grateful to my colleague, Dr H.M. Lenicker and Dr Mark Baily for their advices and support for this case and Miss Rose Borg for all the secretarial help given to me.

References

Bitter, T.: *Systemic Lupus Erythematosus,* Rheumatology. 5 - 49 - 243, 1974.

Dubois, E.L.,: *Lupus Erythematosus,* Los Angeles, University of Southern California Press 1974.

Epstien, W.V. and Gransz, H.: *Favourable outcome in diffuse proliferative glomerulonephritis of systemic lupus erythematosus.* Arthrit. Rheum. 17 - 129, 1974.

Fries, J.F. and Holman, H.R.,:*Systemic Lupus Erythematosus,* Philadelphia, W.B. Saunders, Co., 1975.

Fries, J.F., Powers, R., and Kempson, R.: *Late Stage Lupus Nephropathy.* J. Rheum. 1 - 166, 1974.

Fries, J.F.: *The Clinical Aspects of Systemic Lupus Erythematosus:* Med. Clinics of North America. Vol. 61, No.2. 1977.

Diabetes:

Diabetes Health Care

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Introduction

The following is an account of the development of diabetes health care carried out over these last couple of years. The aim of this article is to give the reader a broader view of the sort of set-up of a health care system that is indicated for the management of this disorder (and other similar chronic non-communicable diseases).

As an introduction to the topic, I would like to make a brief reference again to the National Diabetes Programme, the first phase of which, the epidemiological survey, has been reviewed in a previous article, - since the re-organisation and improvement of diabetes health care services were one of the major aims of this project.

The Ministry/Dept. of Health, conscious of, ad concerned about, the medical health problem, both mortality and morbidity wise, diabetes is in our country, decided in 1980 to seriously tackle the subject. W.H.O. was approached, and with the help of friendly countries like Yugoslavia and Belgium, a National Diabetes Programme was set up and launched in 1981. Among its major objectives were:

(a) to develop and implement at national level, the most appropriate services for diabetes prevention, detection & control.
(b) to use this programme as a model for the further development of other major chronic non-communicable diseases prevention and control in the community - a major area of concern worldwide.

Regarding the former, it was decided to start with an epide miological investigation of a representative random sample of the Maltese population to

(a) estimate the prevalence of diabetes, and its complications in the Maltese Islands; and from this information to
(b) rationalize the existing structure of health services.

The epidemiological survey was carried out in 1981, (by local personnel from the D.H. and the diabetes clinic with expert help from Yugoslavia). In itsfirst phase, it involved circa 1,000 households - a 'random' sample statistically representative of the whole population - and yielded figures of 7.7% diabetes and 5.6% I.G.T. - primarily found in subjects over 40 years of age, and often associated with obesity thus confirming that diabetes is indeed a major health problem. Because it was felt that clinically related to this problem, was the problem of obesity and possible unbalanced nutrition, a food consumption and nutritional status survey was planned to be performed as a complimentary study. This is an-on-going study, but preliminaty results showed that marked overweight is rather common, being present in some 60% of the subjects, with clear preponderance on the female side. Excess calory intake seemed rather frequent with 60% of the total as carbohydrates, only 10% as protein and the rest (i.e. 30%) as fats. In the case of carbohydrates, refined forms, like sugar, constituted by far the major proportion whilst-dietary fibre seemed lacking. The proper distribution of the total daily calories was not ideal, and furthermore physical exercise was clearly lacking in many instances.

The following phases of the study, on-going since then and planned to last some 5 years at least, concerned the area of "complications"- the extent of occurrence of these, their rate of progression, and related "risk factors" that could be involved - this last being of particular importance in that some of these, like obesity, unbalanced nutrition, lack of physical exercise, smoking, alcohol, and hyperlipidaemia, could possibly also be implicated in the other "chronic diseases" common here - e.g. cardiovascular (like I.H.D., hypertension and stroke).

During this period of study, personnel (medical & paramedical) from the diabetes clinic had the opportunity to undergo further specific training in diabetes health care abroad.

As regards health services, I am proud to say that much has been achieved - such as to merit the admiration and very favourable comments of the International Monitoring Committee, consisting of respected experts from various countries including the U.K., Belgium, Yugoslavia, Switzerland, Finland,

and W.H.O. representatives.

What was, until a few years ago, basically a three-roomed unit in SLH, dedicated to diabetes out-patients, has now developed into a department, with the creation, in line with recent W.H.O. recommendations, of a diabetes health care system that can now cope much better with the major requirements of diabetics. These include amongst others:

(a) the means of understanding the basic mechanics of the disease and the various forms of treatment.
(b) relevant and locally appropriate nutritional advise and access to the food stuffs recomended.
(c) availability of speciaised services aimed at the prevention and treatment of diabetes and its complications.

The major improvement achieved has been the better incorporation of health care systems, with appropriate additional facilities at all levels of care (as indeed recommended by the W.H.O. Expert Committee of Diabetes - 2nd Report).

The peripheral clinics in Mosta, Pawla, and Floriana are now functioning as primary health care systems, of great use to the diabetics. They are manned by doctors, nurses and other paramedical, trained in diabetes care, working as a team. In addition to their health function - treating the easier-managable cases, thus freeing DC at SLH for the more difficult cases, but still referring to the clinic whenever indicated - they also serve as educational institutions for staff and patients, disseminating educational information and keeping proper records of patients. They also serve as primary prevention contres by offering and performing 'screening' of 'high risk' individuals.

The diabetes out-patient clinic in S.L.H., manned by well trained personnel, is now functioning as a secondary health care centre providing:

(i) skilled educational programmes for patients (individual and in groups), their relatives as well. as other health care personnel-including doctors, nurses, and other para medical staff-from S.L.H., K.G.H., Graig Hosp., peripheral hospitals & clinicals, community services, and medical & nursing students.
(ii) consultative and specialized services to patients and doctors concerning complex aspects of care - including ward rounds in S.L.H. & K.G.H., and regular visits to outlaying hospitals and peripheral clinics by diabetologists and other trained paramedical personnel.
(iii) full expert assessment and stabilization of newly diagnosed cases as well as of poorly controlled cases (including those referred from elsewhere).
(iv) a basis for certain clinical and epidemiological research investigations - on topics like obesity, nutrition, retinopathy & pregnancy (planned) - as well as on the "current survey".

The incorporation herein of 'units' for nutrition, education, eye and foot (planned) has helped with the various aspects of diabetics health care by providing better education, assessment of 'complications' and thus has both preventive and therapeutic benefit.

Some data on the diabetes clinic and the peripheral centres attesting to the increased load of people being cared for (and therefore the increased confidence being constantly put in these services) show that whereas in 1981 the average number of new cases seen at the D.C. S.L.H. was around 1000, this increased to circa 1500 in 1983 (to date Nov.). With regards to follow-up visits, the number of these performed in the diabetes clinic in S.L.H. remained stationary at around 22,000 per year (affording more time to a smaller number of patients), whilst the number of these performed in the peripheral clinics increased substantially from circa 3000 in 1981 to around 11,500 in 1983 (to date - Nov.).

D.C. S.L.H. - average daily load; 7 new cases & 80 follow-ups (60 visits & 20 for drugs prescriptions, blood tests, & for education) - total number of patients regularly attending is circa 4,500, giving and average number of times a patient is seen per year of 6. Peripheral clinics - total number of patients regularly attending is circa 3,800, giving an average number of times a patient is seen per year of 3.

With regards to "defaulters" i.e. those patients who for various reasons stopped attending for these last 2 years or more, the number of these decreased significantly by circa 16%, dropping from circa 6000 in 1982 to around 5000 in 1983.

Regarding therapy, the data available, even though inevitably limited due to various reasons, lead one to formulate the following educated guess on the management modalities of diabetes in Malta. Calculations (and extrapolations) seem to indicate that some 43% of diabetics are being managed on diet only; another 40% on oral hypoglycaemic agents, whilst the remaining 17% are on insulin. These figures compare very favourable with similar ones from recent studies abroad (including Professor R.C. Turner's of Oxford, England and Dr. A.Jadnesic of Hastings,U.K.) where on average one finds only some 16 - 18% of diabetics controlled on diet only; oral hyproglycaemic agents being resorted to in circa 51 - 57% of cases, and the rest (i.e. 25 - 33% of diabetecs) are managed on insulin. In the Malta figures, the sex differences seem interesting, with overall rather poorer show for the females. Whilst from the total number of males - 52% are on diet only, 16% on insulin and 32% on tablets, on the female side on 36% are on diet only, 20% are on insulin and 44% on tablets. From the combined figures referred to initally, again females appeared to be faring poorer - in fact from the 43% of patients on diet only - 21% are males and 22% are females; from the 40% on tablets - 13% are males and 27% are females; whilst the remaining 17% on insulin are composed of 6% males and 11% females.

Special "units", (staffed by trained personnel and equipped with the necessary apparata) have been opened in S.L.H. - within the medical and obstetric departments - for closer supervision on, and improved stabilization of, the metabolic dearrangments of

diabetics. With regards to the ante-natal section, in particular, I am happy to say that the increased effort and time dedicated to the important aspect of gestation and impaired glucose tolerance have given their fruits in that both the maternal and the foetal well being is now much improved with better metabolic supervision and therapy pre- and post-natally, intrapartum and during the first days of foetal life. This important area is now planned to be further assessed by means of an in-depth study of the problem of diabetes in pregnancy, the results of which could be of great potential benefit both to mother and baby, as well as the community; in the present and in the future - a life-long committment. These units, including the "metabolic ward in M3" are now serving as tertiary levels of care (albeit somewhat restricted in scope).

All these marked improvements together with the introduction of equipment (blood glucose, reflectance meters) in 'sensitive' areas of the Govt. Hospitals, and improved laboratory 'back-up' (where a wider range of investigations, some rather sophisticated, are now available) have led to an overall improvement in the level of diabetes health care with the offering of better services to the patient and the community.

Improved services have also been attained in the out-laying hospitals where regular supervision and consultations by experienced diabetologists (and other paramedical staff) are constantly made, and where standardization of management (both monitoring & therapy) has been achieved. The same applies also for Craig Hosp. in Gozo.

Education, the foundation of good therapy and of preventive medicine, has been given its due importance, and emphasis on this has and indeed still is, very much, been given to the various interlinked 'target groups' viz., the patient, family, high-risk individuals, health-care personnel, and the community, especially the high-risk individuals. The major aims include the motivation of the patient towards better and more comprehensive "self-care", prevention of socio-economic problems and alerting the community to the possibility of prevention. Education to the public is being actively given via the various forms of mass media (T.V., radio, news papers, etc.) covering both the adult and young population sectors with appropriate programmes on diabetes, related disorders, and nutrition. Furthermore, as already mentioned, education on the many aspects of diabetes management is constantly being given to patients (and their relatives) both on an individual basis and in groups, at the diabetes clinic and peripheral centres, in hospital wards, as well as in their residences (by the community nurses). Oral and written material is given to the patients to help educate them on important topics like self-injection (technique & insulin mixing), home-monitoring, diet-sheets...etc. Specialists from the Diabetes Clinics in conjunction with the University of Malta are also closely involved with the training of medical students and nurses both pre-and post-qualification.

It is thus aimed that diabetics (and their relatives), as well as other "target groups" undergo a process of continuous education through their contacts with the various members of the "diabetes team" during their regular visits to the clinics.

Finally work is constantly being done to improve the amount and quality of data collected, the forms of documentation needed and their computerization both for improved health care delivery and for research and evaluation purposes, keeping in mind "cost-benefit analysis".

The experience being regularly accumulated, from all this wide programme is proving invaluable for the planning and integration of this disorder within the wider 'chronic non-communicable disease programme.

Conclusion

Assessing and evaluating the objective of therapy, and the needs of the patient, the promoting of investment in education and counselling and sensible monitoring programmes should help reduce the burden of morbidity and insecurity and also prove financially sensible for society. One should constantly strive towards further planning and investments for the future, keeping in mind the need of regular and detailed cost-benefit analysisof the results. The main objective of such an on-going programme of development and consolidation of health care service should avoid unnecessary delay in further implementing educational and therapeutic measures which delay could lead to an increased burden of complications requiring expensive treatments. Considering related costs of objectives, it is estimated that of the total costs spent on this disorder circa 43% could be 'direct' costs related to the treatment of the illness and its complications - two thirds of this being for hospital admissions, mostly complications in over 65 years olds - whilst 57% would be 'indirect' cost related to lost earning, lost production, pensions and other social assistances, and premature death.

attach with answer 4

Clinical Diagnosis

Once again, the *clinical tests* have been set up by Mr. V.M. Sultana M.D. F.R.C.S., Senior Assistant in Surgery and Lecturer at the University of Malta. The photographs were taken by Mr. Mario Sammut (fifth year medical student).

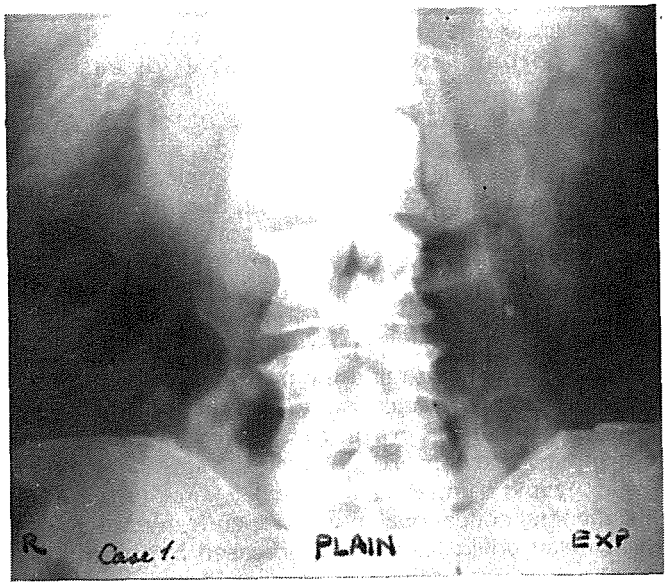
Case 1: A 26 year old woman presented with epigastric discomfort after meal. She also had dysuria, frequency of micturition. On examination: **Abdo:** soft; no tenderness, no rigidity; no masses were palpable. **Invest:**I.V.P.was adviced:-

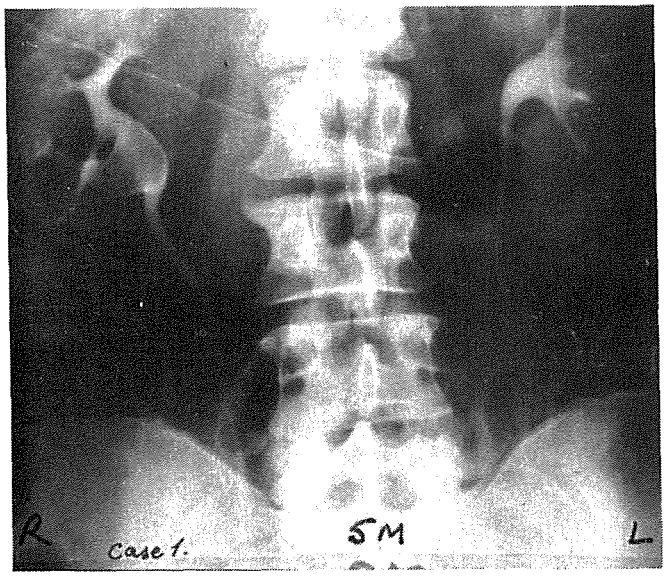
- What are your findings from these X-Rays?

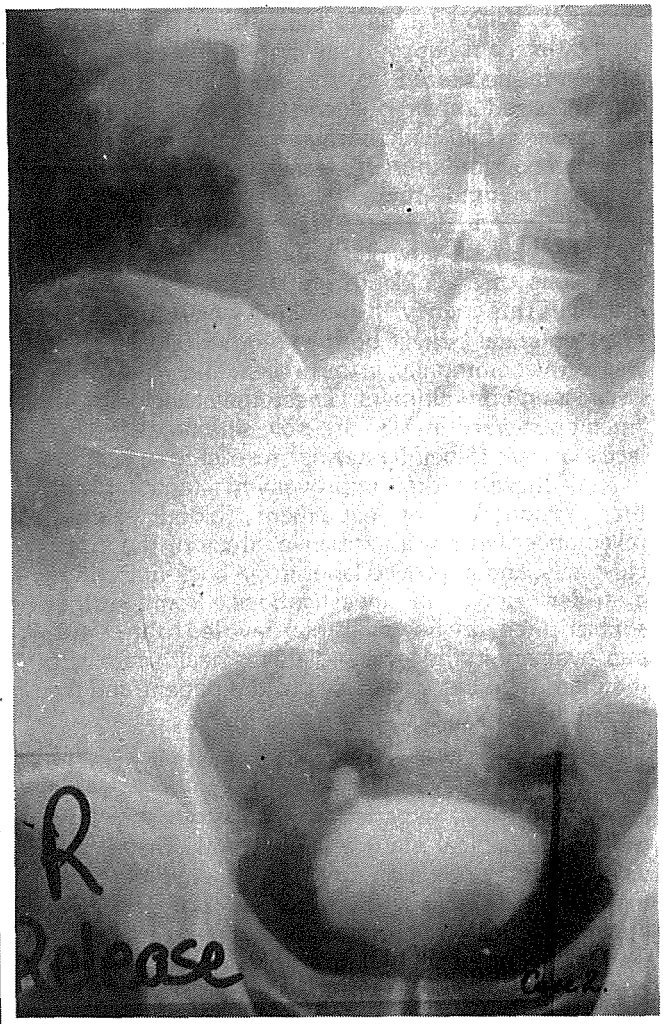
Case 2: An adult male complained of frequency of micturition, dysuria and pain in hypogastric region. On examination there was tenderness in the same site (Hypogastric region).

Invest: An I.V.P. was taken:-

- What is the feature that relates to such a history?
- What other incidental findings do you observe?







Results of "Clinical Diagnosis" in Issue No. 3

Answer: Case 1: The A.P. X-Ray showed hilar opacity in R. Lung field. The lungs are more translucent particularly peripherally and hyperinflated. The domes of the diaphragm are flattened (emphysematous lungs). Ill-defined patchy consolidationin the L. Pulmonary base with pleural thickening in the L. apex. Heart size normal. Calcified aortic arch. Scoliosis of dorsal spine to R. side.

Case 2: The plain abdomen X-Ray shows signs of early-intestinal obstruction. The recto-bubble is missing. Erect film shows a few fluid levels. The patient was later operated and a gangrenous segment of jejunum was resected. Treatment: (a) **Conservative measures:** Maintenance of fluid and electrolyte balance; Naso-gastric suction; nothing should be given by mouth. (b) **Operative:** obstruction is relieved; adhesions cut; and gangrenous loops resected (c) **post operative:** I.V. infusions (parenteral feeding); pain relief; antibiotics as appropriate; early mobilisation; observation of pulse, B.P. and temperature.

Winner: Josanne Azzopardi (IV yr Med. Stud.)

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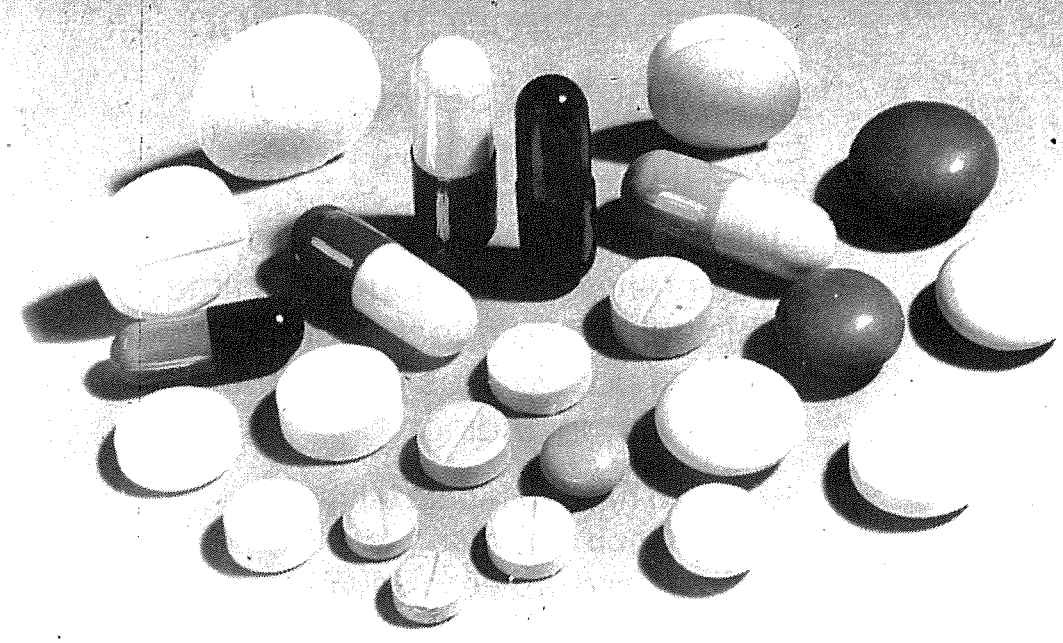

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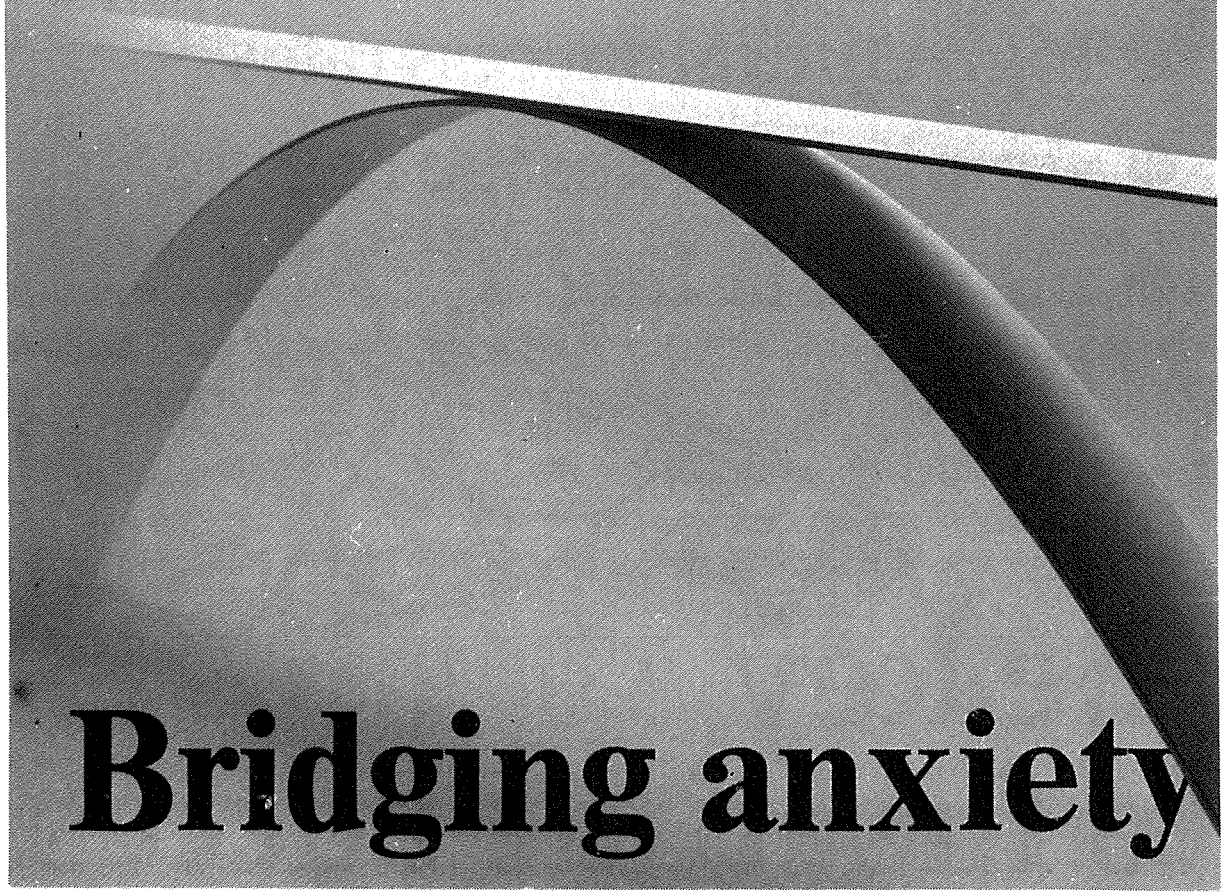

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