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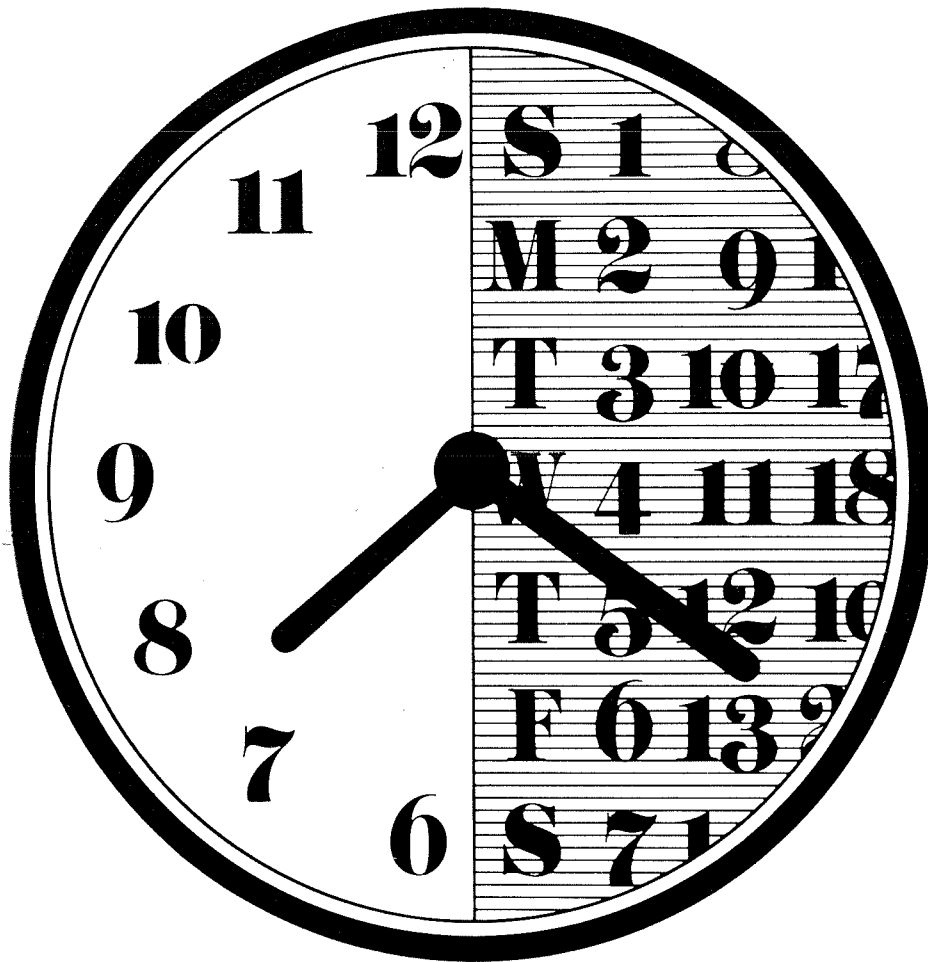
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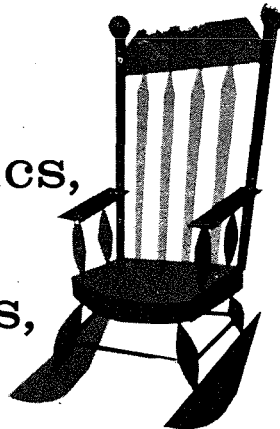
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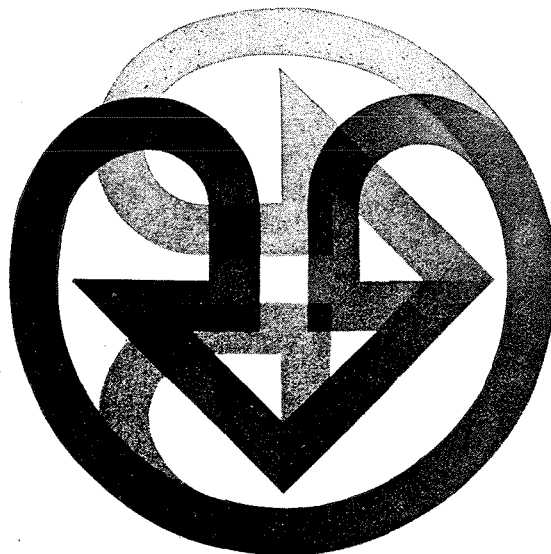
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MAY '72

Journal of the
Malta Medical Students' Association

Editorial Board: Andrew Castillo, Albert Fenech.

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Editorial

April has experienced a new system of examination introduced by the Departments of Pathology and Anatomy. Both Departments invited English Professors (ominously termed 'Foreign Examiners') to sit on the Examining Board. Profs. Gowing was invited by the Pathology Department, and Profs. Ruth Bowden by the Anatomy Department.

The Clinical students had a clear idea of what was in store for them from the very beginning. Their assessment took into consideration their past performance and the subject matter covered was very comprehensive. These two points are imperative if a clear picture of the student's actual knowledge of the subject is required. The grades obtained by the students are not 'just another one of the series', but they serve as a basis on which the student can better (not worsen) his standing in the finals (still compulsory). Whatever unfavourable comments were circulating before the 'happening', opinions have since changed and it is now a generally accepted view that this system of assessment is a very practical and vital step forward in the history of our Medical Education. Two points which the students found objectionable were the relatively low percentage their past performance shared (25%) and the presence of a clinician only during the final assessment. (q.v. letters to the Editor).

The pre-clinical students were informed that their assessment would serve as a guide for their finals (then why the term assessment?) inasmuch as the student would be told his weak points This would enable him to rectify them before the finals. As regards the procedure and general emphasis during the 'assessment', the students were kept guessing up till the very last moment. The tranquillising voice of a woman on the examining 'triad' helped most students keep their pent up fears and doubts under panic level. The majority of students liked the underlying principle of the new system. However, it is felt that a wider spectrum should be covered during suchlike assessments. The advantages of being assessed in a group, and the validity of certain questions asked share mixed opinions. Unsavory remarks regarding mathematical abilities were elicited when the results were made known to the students. This being an independent assessment, certain anomalies (or were they mistakes) should not have happened.

We are certain that both the students and the Heads of Departments learnt much from these assessments. We hope that these lessons will be put to good use in an attempt to provide an efficient and effective assessment system which, some time in the near future, will be adopted and fostered by all the Departments (fingers crossed) thus replacing some of the erroneous conventional beliefs currently in vogue.

Following our last issue, we were overjoyed to receive letters to the editor — keep it up! However, articles are still lacking, so down with your swords and up with your pens and lets have them sailing in.

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Correspondence . . .

Assessment in Pathology

Dear Sir,

I am one of the students who accepted the new system of examination with enthusiasm from the very start. The idea behind this system is very practical, and following this successful experiment all the other Departments should follow suit. However, there are a few points I would like to mention:

The idea of having a clinician participating in the final assessment was one point that deterred many a student. This was attributed to the fact that we students did not know what the clinician had in mind, and also what he really thought of the system. It is, therefore, desired that the clinician attends the end of term assessment sessions in Pathology, and that his role would be that of asking the correlation between the clinical features and the underlying Pathology.

As regards the end of term sessions, I am of the opinion that no marks/grades be given as this only gives rise to unrewarding competition, jealousy and possibly a distaste for the examiners. The student should be told where he stands (without being told the actual grade obtained) and should be informed of any way in which he can improve his standing.

The performance of each student in these tests, however, should have a much larger bearing on the final examination than the 25% allotted in this past assessment. This should hold on the provision that the assessment tests should include all the subject matter covered from the beginning of the course up to the time of the assessment in question, and not just the term's syllabus covered before each assessment. This will definitely reflect the actual spectrum of knowledge on the subject on the part of student. Adopting this system, it will be only fair to allot 65% in the final assessment, and the scope of this assessment will be that of placing the students in an order of employment. It should then become obvious that any other examination following the final assessment will be superfluous.

yours faithfully
J.D.

Open Letter to the Teaching Staff

Gentlemen,

Why must you tantalise your medical students by promising them a continuous assessment system and then giving them a fraud? For that is what this well-advertised so-called assessment system is, a fraud and a waste of time, not worthy of your instigation or our cooperation.

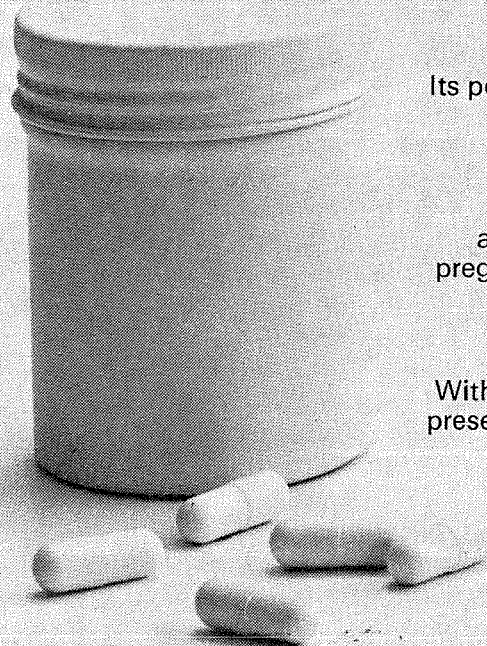
Surely, surely, we all understand the purposes of a continuous assessment system. It is, or should be, a system for estimating, as accurately and as fairly as possible, a student's progress during his time at the medical school. The object of such a system is that when such a student completes his studies, he shall not be forced to sit for some meaningless examination, but will be assessed on the merit of his performance throughout the course. Previous experience at St. Luke's and innumerable other teaching hospitals proves that the student who is capable of writing the best "pseudo-textbook" reply to an examination question is not going to make the best doctor. One cannot learn manual dexterity in examining a patient, or psychological dexterity in communicating with a patient, from a textbook. The most valuable lessons are found in the wards, not in the classroom. Experience is far more important than Bailey and Love. The logical way of making sure that your students are going to be good doctors is to follow their progress by continuous assessment and to forget about examinations.

The newly introduced assessment system at SLH is going to require a phenomenal amount of administrative fiddling. All those silly little white cards, which no consultant seems to understand quite how to use, will have to be collected, sorted, filed, checked, etc., etc. What a lot of paper-work for nothing! The maximum importance that can be given to this system is that it MAY carry 25% of the practical marks in the finals. Even these marks are not guaranteed, (!) for, as the statute reads at the moment, a professor is at liberty to ignore the assessment completely, and rely only on the marks of the final examination. This defeats the whole purpose of continuous assessment.

Continuous assessment is a substitute for these wretched exams, and not a paltry percentage of them. As matters stand a student can still come into the hospital everyday, and yet fail his finals because he arrives at the examination sick with fright. Alternatively, a student who stays at home, buried in his books, can still do very well. (Incidentally, this is not a plea for more compulsory attendance.) Okay, so this year is only a trial run to see how assessment suits Malta. But, at least give it a fair try! Anything less than 50% of the total final marks is pointless.

Another reason that the assessment is such a fiasco is that all students are only too conscious of its grinding, lurching, machinery. A certain well-loved consultant has taken to sitting before his cringing tutorial

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group with a piece of paper in front of him, on which are the names of those students present. The tension in the room rises hysterically as he nonchalantly scribbles hieroglyphics against this name and that. Adrenalin levels shoot up as some foolish student attempts to make out whether that dirty great cross is next to his name, or has mercifully missed him and struck his alphabetical neighbour.

The outcome of one such series of tutorials was so totally unrealistic that the tutorial group in question had no alternative but to take it all as a practical joke, and not a very funny one at that.

As regards specific subjects, it is impossible to assess anything but mobility or agility in surgery at the moment. Spending three days with each consultant, you have one day to say hello, one day to work, and one day to say goodbye. How valid is a surgeon's assessment of a student he has barely seen? We have got to have time to get to know our consultant, his methods, his fads (Chloramphenicol?), and fancies; just as he must be given time to get to know us. I suggest that this process might be hastened by making students wear name-badges. I don't want to go around looking as though I am for sale, but if consultants can't tell one student from the next, well, they must be given a helping hand. Clerking in surgery must be of at least three weeks duration with each consultant if any assessment is to be attempted. Not only do all the students agree that the present one week/one consultant system is bad, most of the consultants do as well, so let's have a change — NOW.

The last question I would like to ask is, why are assessments so secret? The obstetrics and gynecology, and the pathology departments are willing to tell you how you are faring, but the others are not. Why? It is essential to tell a student whether he is progressing in an upward or in a downward direction. He should be able to pull himself up if he is falling below average, but he must know where he is first. There is no point in telling a student at the end of three years that his work is substandard. What do you want him to do about it in the few months before he resits? Every student should be graded at the end of every six week clerking period, and these grades should either be publicised or be available on request.

In conclusion, I would like to say that I am strongly in favour of a continuous assessment system, as I think most students are. What we object to is doing things by halves. Continuous assessment CAN work, as our Pathology department has shown. However, it requires wholehearted participation by all departments, and coordination between them.

Much as I dislike remaining anonymous you will understand my reasons for signing this letter:—

MEDICAL STUDENT.

Dear Sir,

I am very curious to know what criteria were used in the allotment of grades relative to marks obtained by students in this last assessment held by the Anatomy Department. It is very disconcerting to realise that certain students obtaining marks below 25 (out of 40) should get a higher grade than certain students getting over 25. As this assessment was held irrespective of the students' past performance, (this was told to us in the class meeting after the assessment) I can't see any reason why this should have happened. On the whole, us students liked the way it (the assessment) was carried out, but the unofficial results given us came rather as an anti-climax. These happenings don't help much in boosting the students' morale before the finals, and incidentally neither do the uncalled for tantrums thrown, blaming us students for something we are entirely innocent of.

yours faithfully
DISILLUSIONED!

Dear Sir,

In your editorial of the last issue you mentioned the sad lack of any cultural background in the Maltese Medical Student. It seems that some of our lecturers have picked this topic up, and they RUB it in every time they get an occasion to.

Well! I have the following suggestion to make. Could not the Bacteriology Department, with such an intellectual on its staff organise a set of lectures on topics of cultural interest. We could have lectures on such subjects as:

"Nicknames — from Cyrano de Bergerac to Microbu."

"The Psychology of Laughter — with reference to the life of Christ."

"Different Animals Die in Different Ways."

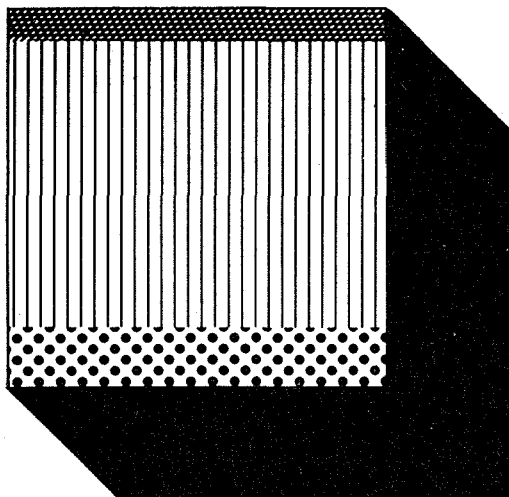
"How to Run a Library With Only One Book."

"How Pasteur Cured the Silkworms."

I'm positive that after a course of such lectures we will all realise that it is downgrading to behave so riotously during certain lectures, although it is thought in higher centers that we have developed an immunity to them.

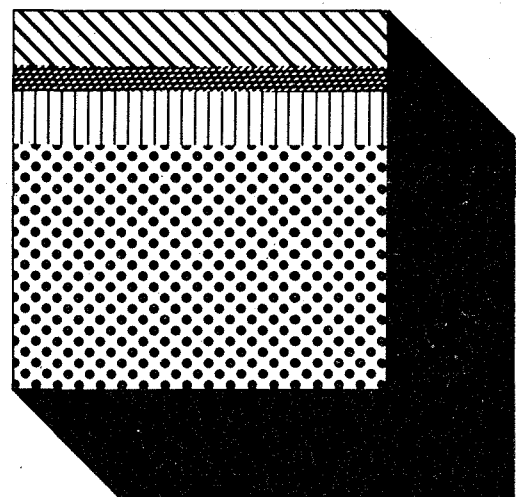
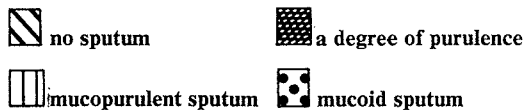
Yours truly,
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Before treatment

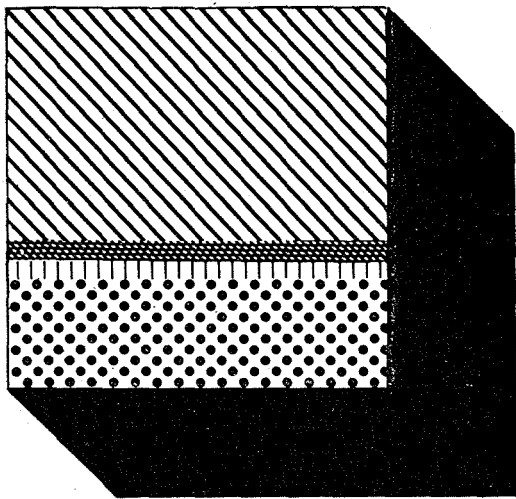
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1. General Practitioner Research Group, *Practitioner*, 1969, 203, 817
2. Leading Article, *Brit. med. J.*, 1969, 1, 525
3. Howells, C. H. L. and Tyler, L. E., *Brit. J. Clin. Pract.*, 1971, 25 (No. 2), 77
4. Hughes, D. T. D., *Postgrad. med. J.*, 1969, 45, 86.
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Some Aspects of Physiotherapy

Maria Hollingsworth, MCSP. Dip.P.E. MPPA. A.Obst.CP.

A physiotherapist was once described as someone "who switched the heat lamp on and off and looked decorative." As this was said by a doctor to an audience of physiotherapists some of whom, though not necessarily decorative, were using advanced techniques, it was not considered tactful. But it is possible that in the long and comprehensive span of his medical training he had only heard one lecture on physiotherapy. Even this was probably given by a doctor and not a physiotherapist.

The history of physiotherapy is one of change and adaptation. Originally massage and remedial gymnastics formed the basis of the work, but, with advances in electrical equipment, the use of heat, light, faradic and galvanic currents, diathermy variations and ultrasound were introduced. As more patients could be treated by machines than manually, and massage was thought to be too pleasant for the patient, the physiotherapist gave less massage and more exercise and electrical treatments. Now that manipulation is recognised as an important branch of the work, there is a shortage of the sensitive touch necessary, because of lack of massage training and practice.

Although all chartered physiotherapists have always worked only under the direction of a doctor, the view of the physiotherapist as a member of a medical team is a comparatively new one. This emphasises the importance of cooperation with other medical staff, especially in chest surgery and intensive care units. Most large hospitals in England now work a shift system so that a physiotherapist is available for treating respiratory complications, both medical and pre- and post-operatively. The stethoscope is now accepted as necessary to those working on respiratory cases. To check the force of expiration and measure vital capacity, the doctor may order a Vitalograph to be taken and calculated.

In obstetric work the physiotherapist is also part of the team which aims at a healthy mother and baby. Ante-natal classes, given by the physiotherapist are combined with the ante-natal clinic so that patients' travelling is reduced to a minimum. To prospective mothers are taught foot and ankle exercises which they will do throughout pregnancy and continue post-natally in order to minimise trouble with varicose veins, fallen arches and swollen ankles. Apart from instruction in getting up from the floor, and the best position from which to make beds, they do not do any energetic exercise. They learn to relax, and to take up the examination position with relaxed abducted legs, and to lie on their side in the "position of rest". They are trained to breathe gently and not too deeply during their contractions — never described as pains (a passive suffering mind-picture.) The process of birth is described in simple terms. The emotional problems of pregnancy and the puerperium are discussed, emphasizing that these are common to most mothers.

It is important that they should gain confidence to ask for information from doctor, nursing sister or physiotherapist and to forget the harrowing description of blood-baths and permanent invalidism kindly told to them by well-meaning friends and relations.

During labour, if there is co-ordination between doctor, midwife and physiotherapist, the latter is present to help the mother to carry out the relaxation and breathing techniques which have been learned in class. Naturally the midwife or doctor gives the orders as far as the baby is concerned but it is the job of the physiotherapist to be at the head of the bed and concern herself with encouraging the mother, and otherwise to be as unobtrusive as possible.

Postnatal exercises aim at leg circulation from the first possible moment, progressing to adduction of legs and strengthening of muscles of the pelvic floor, balancing exercises for the recovery of good posture, and trunk exercises for recovery of figure. Naturally this programme is only possible in hospitals where the mothers stay a week after the birth of the child. If they return home in 48 hours, there is only time to repeat the ante-natal leg exercises.

After gynaecological operations, exercises similar to post-natal ones should be given as soon as possible. Emphasis should be on strengthening the pelvic floor muscles, and good posture in walking. Should there be post-operative incontinence which continues after the wound is healed and the patient returned home, treatment by vaginal faradism can be given. A good percentage of recoveries has been obtained by Miss Tanner, MCSP Dip. TP. (late of Guy's Hospital) in what she calls her "wet clinic" in London. The technique can be applied for vaginal prolapse (cystocele, urethrocele) and sometimes for uterine prolapse. Third degree prolapse is not in the province of physiotherapy and requires surgery.

The value of physiotherapy in re-habilitation is well understood in Malta, and the bulk of the cases treated in the out-patients' department of St. Luke's are hemiplegic, paraplegic or amputees. The great value to these patients is to feel that they are not maimed wrecks but can do something to help themselves towards a useful or at least partly independent life. The spectre of the bedridden patient sapping the life out of a devoted spouse or daughter is less in evidence nowadays, when early passive movement keeps the channels of recovery open. As soon as active re-education is started, the remedial exercises, now re-decorated with the impressive name of proprioceptive neuro-muscular facilitation, use muscle groups in habitual actions, so that weak muscles are encouraged to function through well-worn nerve paths, assisted by undamaged muscle tissue. Walking with aids at the first possible moment is a great help

to morale and the physiotherapist should be able to make temporary splints which can be discarded when no longer necessary. Plastazote is a useful splinting material, as it is light to wear and can be fitted accurately to individual requirements. All these patients could have the help of the pamphlets from the Society for the Disabled to ease everyday difficulties. Perhaps essential parts of these are already translated into Maltese. Rehabilitation covers a wide field, sometimes including occupational therapy and schooling, and cerebral palsied, spastic, myelomeningocele, and cystic fibrosis children should ideally combine their education with physiotherapy so that they do not deteriorate physically or mentally.

Recent injuries of soft structures are treated with heat or cold therapy, or ultrasound. All these treatments aim at preventing too much swelling and reducing haematoma. Treatment should begin at the first possible moment after injury in order that adhesions should not form. If the injury has already become stiff, then mobilisation of some sort, geared to the extent of tissue destruction, must be started as soon as possible. Scar tissue can be kept supple by gentle frictioning of the surrounding skin. Burns causing contractures can be helped by loosening scar tissue when healed, massaging with cream, and stretching contractures. Skin grafts must never be given infra-red radiation.

When a fractured limb is taken out of plaster, the patient will be reluctant to move unless maximum possible movement has been encouraged while in the plaster, and immediate increase of movement urged when the fracture has joined. The physiotherapist must show the patient that it is now safe to move the joints in spite of painful stiffness. Thickened oedema in a limb can be softened by massage followed by elevation for draining. Without this help the patient is unlikely to be able to strengthen weak muscles quickly.

As a member of the team dealing with psychosomatic illness and (preferably) non-violent psychiatric patients, the physiotherapist has a place in helping to distract the over-introspective types by working them in exercise classes. Only experienced teachers can attempt this type of work, as a recreational atmosphere can get out of hand without quick thinking in giving instruction. Sometimes in cases of functional paralysis, electrical treatment with faradic current can be given in unorthodox ways. These minds are susceptible to suggestion and although such treatment may sound like witch-doctoring, a consultant in psychology at St. Thomas', has some respect for the African witch doctors' use of rhythmic trance-production for the relief of tension. Any means of physiotherapy which can relax tension can therefore help these disturbed patients. Naturally the physiotherapist

cannot take the place of the trained psychiatrist, but, given information by him, can sometimes help to cut down the recovery time, on lines of treatment which he thinks advisable. If the hyperaesthesia stage of the drug addict has passed, massage can help relaxation in some cases, but these patients are unpredictable.

It is more satisfactory to treat the patient who is likely to recover and be a credit to the medical team than to struggle for long periods with geriatric or very ill patients. Both from the point of view of the person treating them and the patients it is better that these long-term cases should attend a general clinic than be herded into a department with an applied "Abandon hope!" notice over the door. The older people, however, have so much to offer us in return for the little we can do for them, and it is important that they should feel cared for. In Malta care affection is more the lot of the old than it is in other places, but in addition there are practical aids such as hoists, pulleys and slings which the physiotherapist can co-ordinate with occupational therapy to make life more interesting and independent for them. A patient with only partial use of one hand, and confined to a wheel chair can paint if a spring sling is used to support the arm. The ideal is treatment at home by mobile clinic so that they can be part of the family without disrupting family life. By this means or by the day-hospital system, physiotherapy, coordinating with the surgeon, can avoid contractures giving rise to sores; and safety devices can help to avoid falls and other accidents;

Cancer patients can be helped by physiotherapy and, as Raven said in a paper read to the British Council for Rehabilitation of the Disabled:

"The rehabilitation of the cancer patient is rewarding, for many have a good prognosis following modern treatment and are able to earn their living in their usual employment. In fact, many are really better life-prospects than a lot of patients following coronary thrombosis, provided they are well rehabilitated."

It is most important in treating cancer that the doctor should instruct the physiotherapist in exactly what he wishes to be told to the patient. It may be that the patient will give the physiotherapist a fairly accurate prognosis of his own case, and it must be agreed what is to be the answer.

It is not possible to mention more than the main trends, and there are many other uses for physiotherapy, some of which are discovered by chance. There was a physiotherapist called in to help a Bertram Mills circus elephant, who could not elevate his trunk. She succeeded in curing the poor animal, and her photographs to prove it!

LECTURE NOTES ON GENERAL SURGERY

H. Ellis and R. Yorke Calne

Third Edition

Blackwell Scientific Publications

Price £2.25 — 400 pages.

In the third edition of this well-known book Ellis & Calne present the reader with a practical, wide-angled view of surgery which could only have been achieved from teaching generations of medical students.

The chapters are divided into sub-headings which make the book easy to read and quick to understand. The management of common surgical problems such as peptic ulcer, intestinal obstruction and postoperative complications is given the prominence it deserves.

The sections on cardiac and neuro surgery have been revised and a short but strikingly informative section on transplantation surgery has been included at the end of the book.

It is a must for undergraduates preparing for their Finals and I recommend it especially to those students whose basic surgical knowledge has become submerged in unnecessary detail from reading longer text books for too long.

C.S.

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ESSENTIAL IMMUNOLOGY

by Ivan M. Roitt M.A., D.Sc.(Oxon),
M.R.C.Path.

Blackwell Scientific Publications

First Publication 1971

Price: £1.50

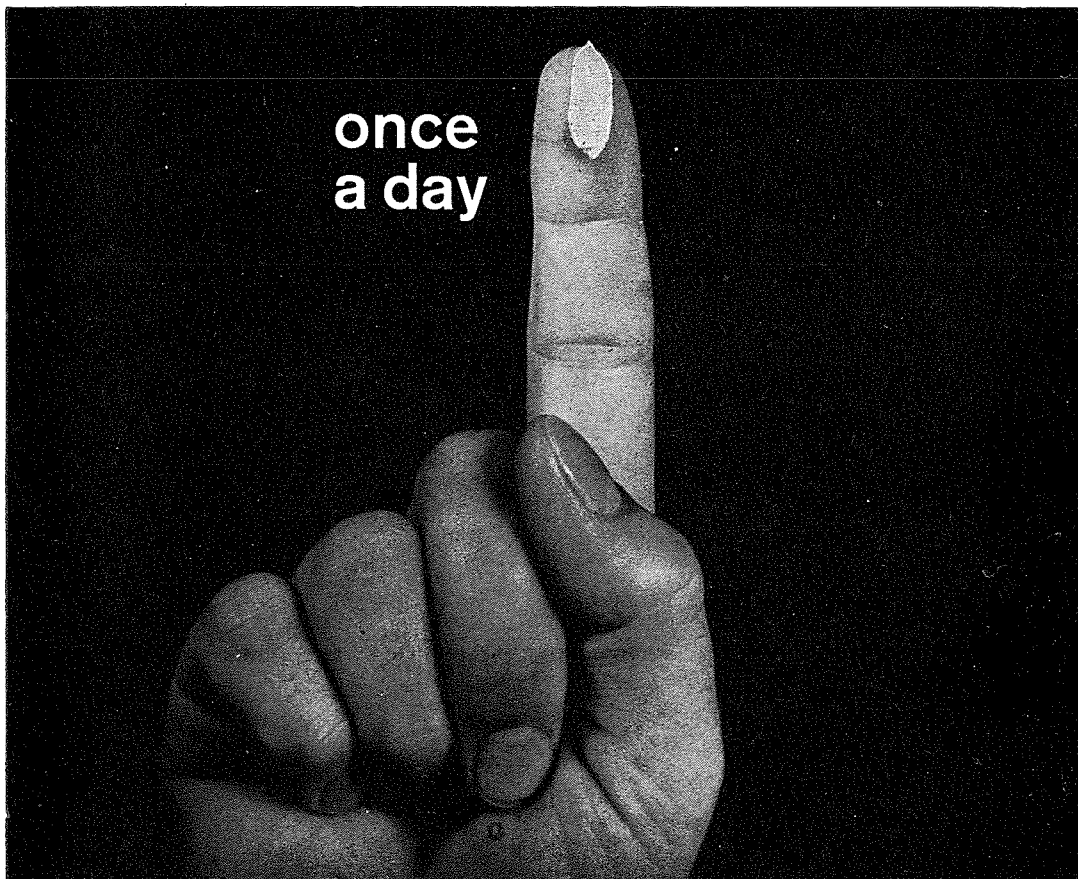
Many textbooks on Medicine are outdated on immunological subjects, and it is therefore wise to review the subject on such a comprehensive book as this. The author presents the main theories which have evolved from experimental work, with reference to his own experience in this field.

The set-up and wording of the book is excellent, and the very instructive tables deserve special mention. Although some readers may not be interested in the biochemistry of Antigens, Antibodies and their mechanism of interaction, the subject is laid down in such a simple manner that any medical student with a basic knowledge of biochemistry will enjoy reading it. The sections in which most readers will be interested are those related to the clinical aspects of the subject, and in this respect, the matter is straight to the point especially in the chapters on Hypersensitivity, Transplantation and Auto-immunity.

In my opinion this is an excellent book on Immunology, and it should be read by all Medical Students and Practitioners.

J.D.G.

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WARTS - Common and Frustrating

Anton Bizazza M.D.

Warts or Verrucae commonly affect people of all age groups, both sexes and of any ethnic background. They are the bane of the busy doctor's practice, in that something apparently simple and straightforward can be virtually impossible to treat. Conversely, the successful eradication of warts in one part of the body can sooner or later be followed by their reappearance elsewhere, to the discomfort of the patient and the frustration of the practitioner. It is not surprising, therefore, that warts have been variously described as a devil's curse, a sign of evil spirits possessing the patient, a disease due to contact with toadstools, toads, bats and animals. In some areas such as the Congo Basin, warts are regarded as evidence of special healing powers, while in more so-called advanced countries the failure to treat patients of warts results in some very uncomplimentary comments about the Medical Profession.

In actual fact, there is nothing mysterious about the wart, which is best defined as "a common, contagious, benign epithelial tumour of viral origin". The course of the infection is erratic; it may persist as a single lesion, or satellite lesions may develop by autoinoculation. Warts are broadly classified as **common**, **syphilitic**, **malignant** and **tuberculous**. The lesion under discussion here is the common variety, since the others can normally be treated when the disease of which they are merely a symptom is being taken care of.

Warts appear to be commonest in childhood and rather rare in old age. Characteristically, complete regression may be noted after months or years, with or without treatment. The varying appearance and size of warts depend on their location, as well as on the degree of irritation and physical trauma to which they are subjected. Some individuals seem to be more susceptible to warts than others, and true to the characteristic of virus diseases, many people in closed communities, where contacts are closer than normal, remain immune to the infection.

Histologically, warts present the three features of hyperkeratosis, acanthosis (local hyperplasia of the skin's prickle-cell layer) and dermal papillomatosis. These three reactions account for the wart's density, and some warts may have inclusion bodies in them.

Clinically, warts are whitish, well defined tumours of varying size, having a rounded or pointed top and a sessile or pedunculated base. Their general shape, as well as the presence or absence of pairs, depends very much on their situation. In general, a wart on a pressure-area such as the sole of the foot, tends to be flat and painful, while a wart on the chin or penis tends to be more truncated and more or less painless. A wart may be solitary or multiple in one or more areas of the body. The wart is found most commonly on sites subject to trauma such as fingers, knees, elbows, face, scalp and

soles of the feet. The penis and inner side of the ear are somewhat less common sites.

Warts can be subdivided into different types, but this is rather useless and more of an academic interest, as the etiology, clinical course and principles of treatment are common to all types. In any case, the easiest way to classify warts is the following:—

(1) **Plane** (*Verruca plana*) — as on the soles of the feet and the knees.

(2) **Filiform** (*Verruca filiformis*) — pedunculated as over the bearded areas.

(3) **Common** (*Verruca vulgaris*) — small and round, mainly on the hands.

(4) **Plantar** (*Verruca plantaris*) — pressure points on the foot.

(5) **Acuminate** (*Verruca acuminata*) — soft and fleshy; commonest on mucocutaneous areas, particularly the ano-genital. They can be confused with, and are often mistakenly called, Venereal warts.

There is no specific treatment for warts, some regress spontaneously while others will resist any therapy, including surgical removal. A successful treatment for one person need not necessarily be so for others, while some people follow folk-medicine remedies such as the use of early morning spittle, the eye of a potato or smearing with fertiliser. The surprising thing is that such odd remedies sometimes succeed where a more scientific approach fails.

Some 5% of warts disappear spontaneously — this leaves 95% to be accounted for. The best approach by the doctor is to first explain to the patient what warts are all about, and it is a sound idea to show the patient a medical text-book describing the difficulties of treating warts. Chemical treatment is tried, and this must be attempted for three months, or more if progress is being made. Common and Plantar warts can be tackled with any of the following applied locally thrice daily:—

(1) 5% Picric Acid

(2) 40% Salicylic acid in Collodion

(3) 20% Glacial Acetic Acid.

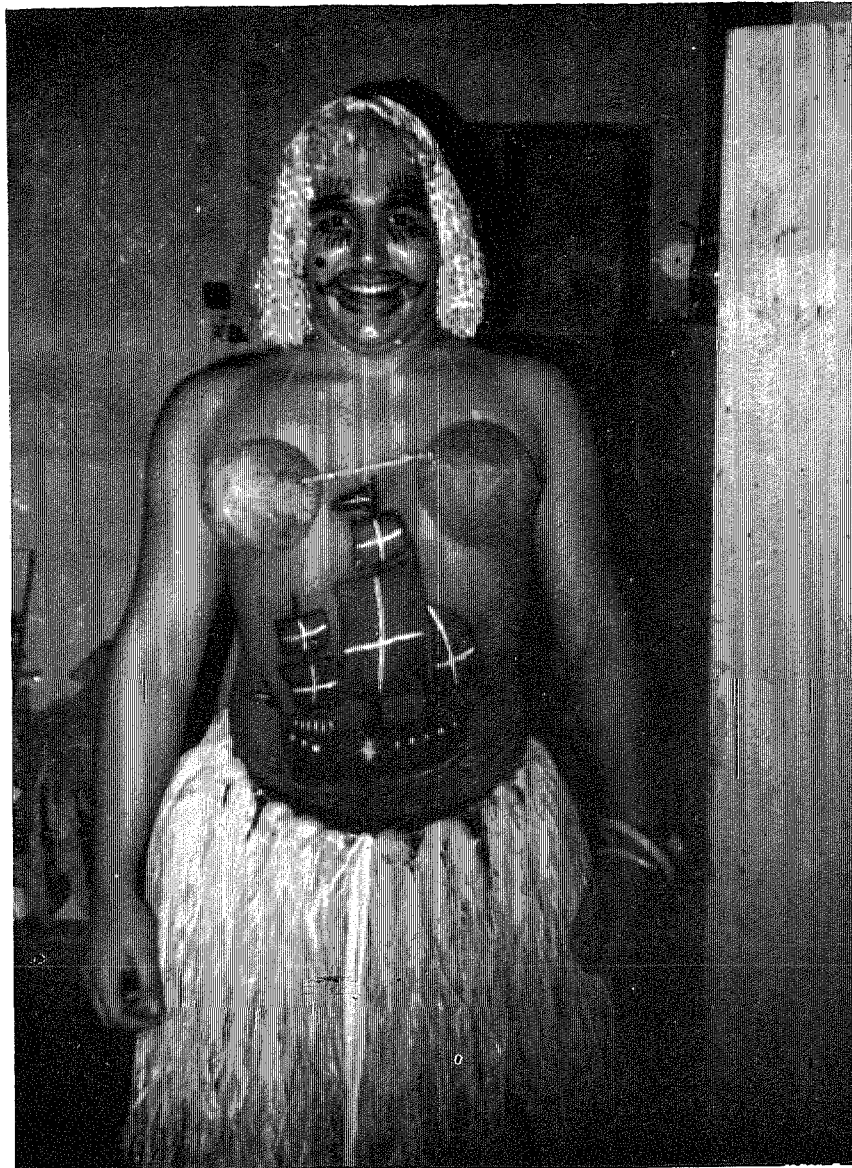
Coincidental with any of these, one may use a heat lamp to advantage. Acuminate warts, including those on the penis, are best treated with 25% Podophillin in Alcohol, but this can be rather painful.

Regretfully, the above treatments are very often disappointing, or — more commonly — they rid the patient of his warts which later reappear in the same or in an adjacent site. In such cases, and particularly when dealing with plantar warts, one has to resort to

surgical removal of the lesion together with a small surrounding margin of healthy tissue. This is best done by means of the electrocautery, using local anaesthesia when the wart is solitary, but resorting to general anaesthesia in all other cases. This line of treatment may appear drastic to the patient, but it eradicates 65% of warts permanently. The other 35% simply fail to respond to treatment or else recede spontaneously after anything up to five years.

There are less common and more expensive thera-

peutic approaches that one may adopt, but their use is limited. The first is X-irradiation, which is still employed by some, but the dosage must not entail the risk of subsequent atrophic change, and it will be a brave man who will expose a growing child to repeated X-irradiation. The other alternative is to apply liquid Nitrogen, Oxygen or Carbon Dioxide, the resulting "snow" sometimes freezing off the wart. This is an impressive form of treatment, but it is by no means painless, is very expensive and not always effective.



"You see, Doc, I've got this slight problem..."

THE TOP TWENTY

1. Girl from Treponema	The Love Affaire
2. Good Vibrations	The Parkinson Family
3. I wanna hold your hand	The Thalidomides
4. Once I see you I never forget you	Watts Hisname
5. Yellow Liver	I.P. Daily
6. Shigelle	The Dysenteronics
7. You've got your troubles, I've got mine	Arthur Dean
8. My heart longs for you	The Plastic Valves
9. Les Syphilides	Chopin
10. It's just another way	Sixty Nine
11. It don't come easy	Prostat Itis
12. Culmen	Vermis Bizet
13. The Sound of Music	Levator Ani
14. I've got you under my skin	Pim Pill
15. God save our gracious spleen	The White Minstrels
16. Overflow	The Colostomites
17. You've done it again	Trans Incontinents
18. Let it all hang out	Aaaaaaaaaahhh
19. I've gotta luverly bunch of testicles	C.A. Testis
20. No matter how I try	Gilbert O'Constipan



ODE TO THE BACILLUS

Oh, powerful bacillus,
 With wonder how you fill us,
 Every day!
 While medical detectives,
 With powerful Objectives,
 Watch you play.

(William T. Helmuth)

He prayeth best who loveth best
 All things both great and small.
 The Streptococcus is the test —
 I love it least of all.

(Wallace Wilson)

Tis better than riches
 to scratch when it itches.

Learning without thinking is useless.
 Thinking without learning is dangerous.

(Confucius)

An attractive young brunette was about to undergo a minor operation. She had been prepared for the operation and wheeled along to the theatre door where the nurse left her to see whether the stage was ready or not. Hardly had the nurse departed when a young man in a white coat came up to the trolley, lifted the sheet, examined her closely and walked away, nodding reflectively. He was succeeded by another who also left without comment. When a third appeared and pulled back the sheet, the young lady demanded pettishly: 'Isn't it about time you got on with the operation? I don't see the point of this last minute observation. Is the theatre ready?' 'No idea, lady,' replied the young man, 'We're just painting the corridor!'

Bacteria keep us from heaven and put us there.
(Martin H. Fischer)

In the Nineteenth Century men lost their fear of God and acquired a fear of microbes.

Soap and water and common sense are the best disinfectants.
(Sir William Osler)

The functional form of Impotence fills the coffers of the quacks, and swells the list of suicides.
(Rutherford Morison)

.....He who immerses himself in sexual intercourse will be assailed by premature ageing. His strength will wane, his eyes will weaken, and a bad odour will emit from his mouth and his armpits.....His teeth will fall out and many maladies other than these will afflict him. The wise physicians have stated that one in a thousand dies from other illnesses and the remaining 999 in the thousand, from excessive sexual intercourse. Therefore, a man must be cautious in this matter if he wishes to live wholesomely. He should not cohabit unless his body is healthy and very strong and he experiences many involuntary erections... Such a person requires coitus and it is therapeutic for him to have sexual intercourse.

A person should not cohabit when he is satiated nor when he is hungry but after the food is digested in his intestines. He should examine whether need for excretion exists before and after coitus. One should not have sexual intercourse standing or sitting and not in a bath house nor on the day when he takes a bath nor on the day of phlebotomy nor on the day when setting out for a journey nor on the previous or following days of such occurrences.
(Moses ben Maimon)

You notice that a Tabetic has the power of holding water for an indefinite period. He also is impotent — in fact two excellent properties to possess for a quiet day on the river.
(Dr. Dunlop)

The best way to keep flies out of the kitchen is to keep a lump of shit in the living room.



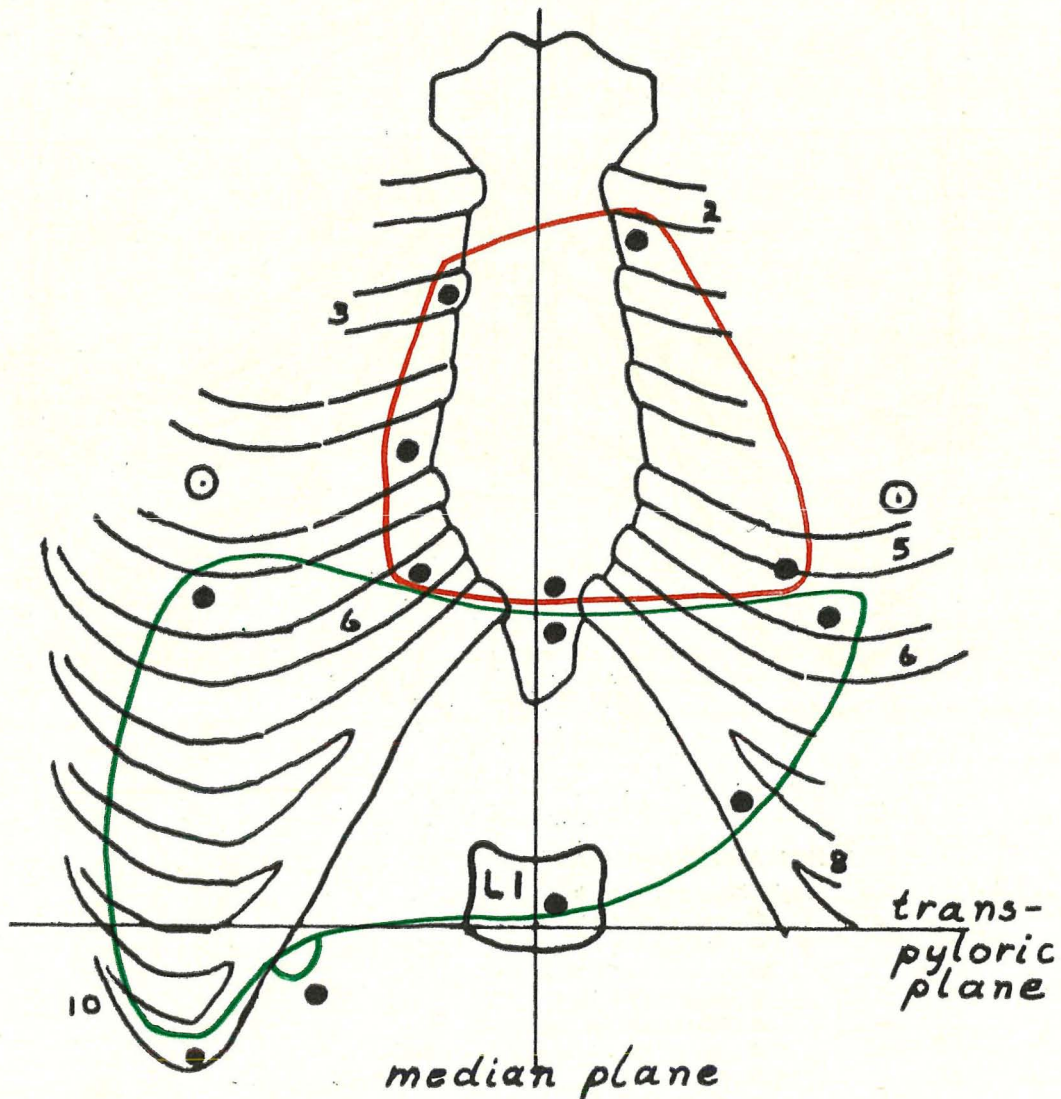
Active Members of the Royal Huntington's Chorea Society

Pin Point Your Insides

Bernard Anastasi M.D.

Every medical student knows the approximate whereabouts of the important organs. However, the aim of these diagrams is to enable the student to map out, in the order given, a series of important points in relation to bone and plane landmarks from which the surface projection of internal organs can be accurately obtained and remembered.

Reference: Gray's Anatomy.

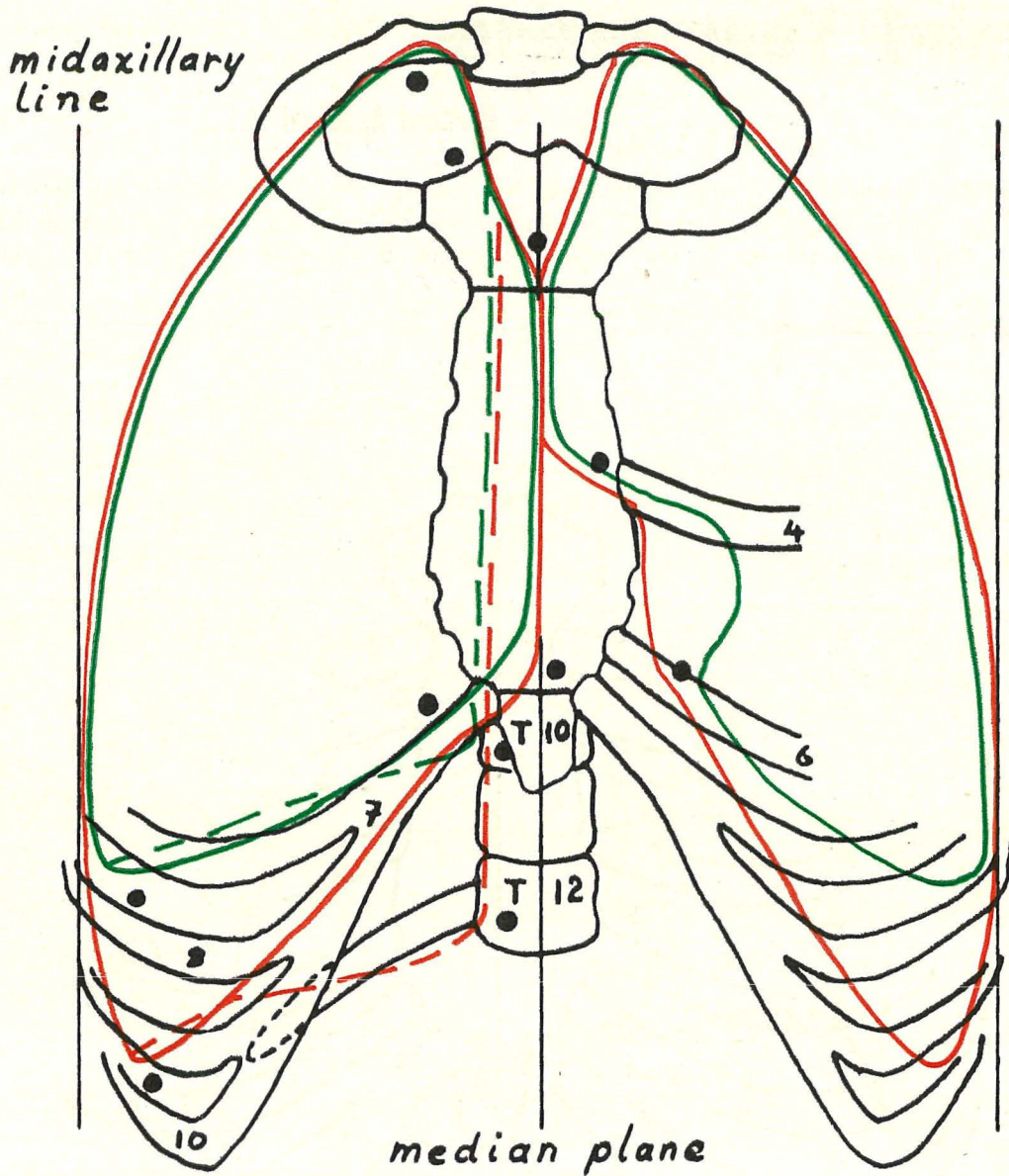


HEART

- Left Border :**
- apex beat — 5th intercostal space, 9cm from median plane, below and medial to left nipple.
 - upper point — lower border of 2nd costal cartilage, 1.2cm from sternal margin.
- Right Border :**
- upper point — upper border of 3rd costal cartilage, 1.2cm from sternal margin.
 - widest point — 4th intercostal space, 3.7cm from median plane.
 - lower point — 6th costal cartilage. passes through xiphisternal angle.
- Lower Border:**

LIVER

- Lower Border:**
- right 10th costal cartilage.
 - fundus of gall bladder — 4.5cm to right of median plane, below 9th right costal cartilage.
 - crosses infrasternal angle at intersection of median and transpyloric planes.
 - tip of 8th left costal cartilage.
- Upper Border:**
- left end — below and medial to left nipple.
 - passes through xiphisternal joint.
 - right end — below right nipple.



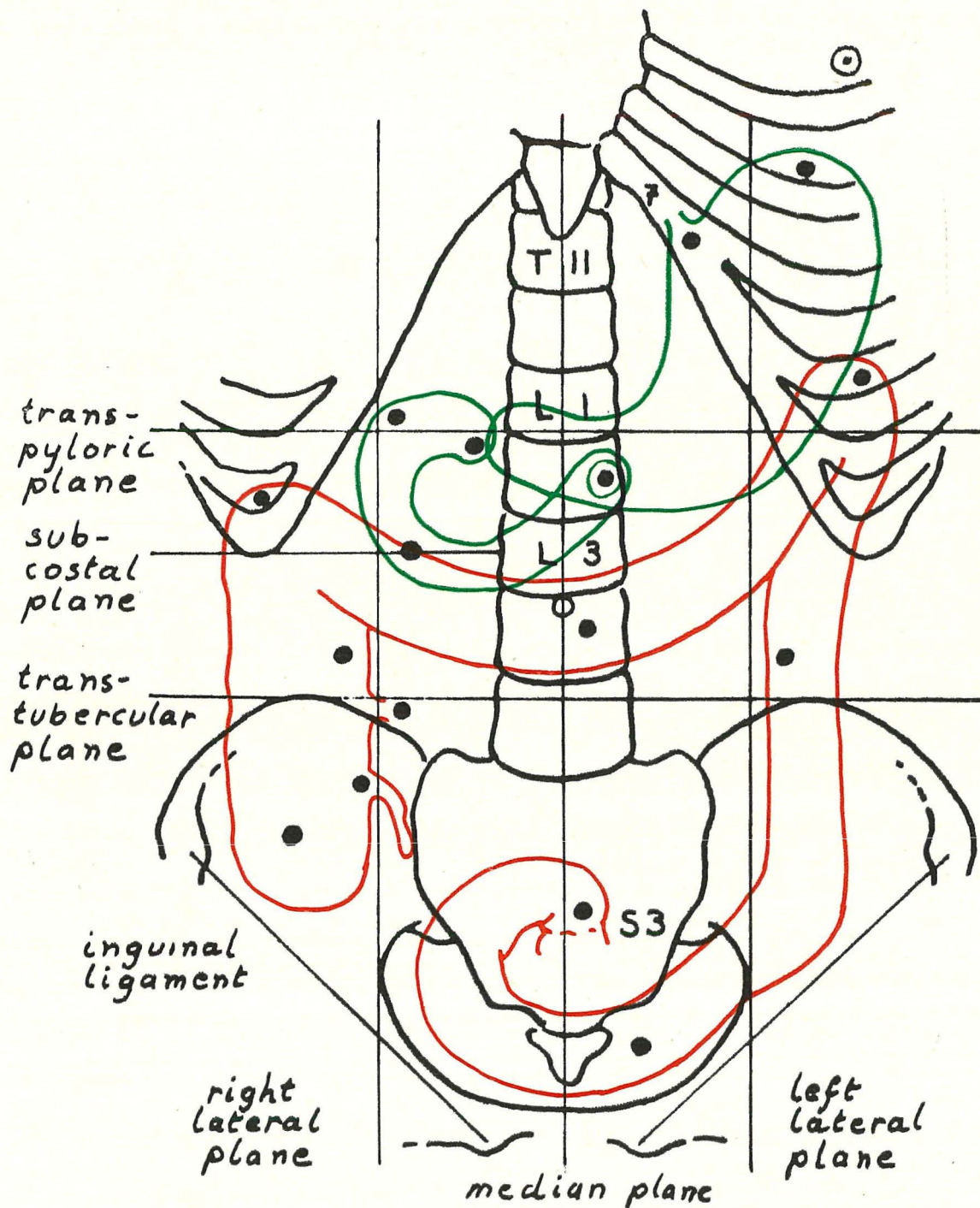
LUNGS AND PLEURAE

Right Lung and Pleura:

- lower edge of neck of 1st rib.
- sterno-clavicular joint.
- sternal angle in midline.
- xiphisternal joint.
- 7th costal cartilage.
- 8th rib in midaxillary line (lung).
- T. 10 (lung).
- T. 12 (Pleura)
- 10th rib in midaxillary line (pleura).

Left Lung and Pleura:

- N.B. same as right, except:
- diverge laterally at level of 4th costal cartilage.
 - 6th costal cartilage.

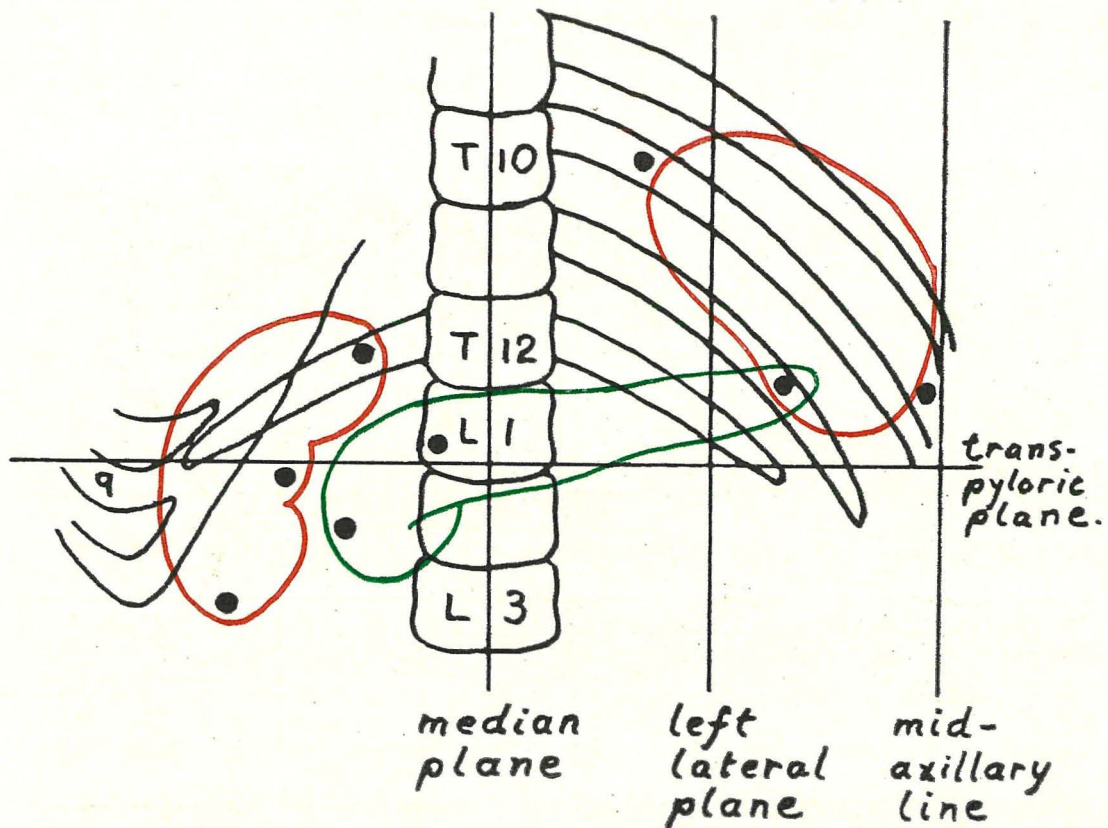


STOMACH AND DUODENUM

- Cardiac Orifice — to left of median plane, behind 7th costal cartilage, 2.5 cm. from its junction with sternum, at level T11.
- Fundus — level of left 5th intercostal space, below left nipple.
- Pyloric Orifice — 1.2 cm. to right of median plane, on transpyloric plane.
- Superior Duodenal Flexure — at neck of gall bladder.
- Inferior Duodenal Flexure — medial to right lateral plane, at level of lower border of L3.
- Duodenojejunal Flexure — 2.5 cm. to left of median plane and 1 cm. below transpyloric plane, at level L2.

LARGE INTESTINE

- Caecum — (6 cm. long) occupies triangular area bounded by the right lateral plane, transtuberularplane and inguinal ligament.
- Ileocaecal Orifice — at point of intersection of right lateral and transtuberular planes.
- Vermiform Appendix — about 2 cm. below end of ileum.
- Ascending Colon — (15cm.) runs upwards immediately to right of right lateral plane.
- Right Colic Flexure — midway between subcostal and transpyloric planes.
- Transverse Colon — (50cm.) reaches level of umbilicus.
- Left Colic Flexure — above and lateral to intersection of left lateral and transpyloric planes.
- Descending Colon — (25cm.) passes downwards just lateral to left lateral plane as far as inguinal ligament.
- Sigmoid Colon — (40cm.) forms a loop within lesser pelvis.
- Rectosigmoid Junction — median plane at level of 3rd piece of sacrum.



KIDNEY

(11/6/3 cm.)

- Upper Pole — level T 12, 2.5 cm. from median plan.
- Hilus — level L 1, 5 cm. from median plane, on transpyloric plane, slightly median to tip of 9th costal cartilage.
- Lower Pole — level L 3, 7.5 cm. from median plane, 2.5 cm. above iliac crest.

Note: left kidney is 1.25 cm. higher than right kidney and so is also in relation to 11th rib.

SPLEEN

(12/7/4 cm.)

- Anterior Extremity — midaxillary line.
- Posterior Extremity — level T 10, 3.5 cm. from median plane.

PANCREAS

(12-15 cm. long)

- Head — lodges in curve of duodenum.
- Neck — at pylorus.
- Tail — above and lateral to intersection of left lateral and transpyloric planes.



Worried woman: 'Oh doctor, I do hope it's the menopause!'

Doctor: 'I'm afraid so madam — too many men and too little pause!'

The desire to take up medicine is perhaps the most distinguishing feature which recognises man from animals.

Surgeon: 'I'm afraid your condition is critical. I shall have to remove half your large bowel.'

Patient: 'That's all right, doctor — better a semi-colon than a full stop!'

The doctor put the fat girl on a diet of nuts and bananas. A month later she came in beaming happily — but still as fat as ever.

'Dear me', said the doctor. 'The diet doesn't seem to have done you much good, you haven't lost weight.'

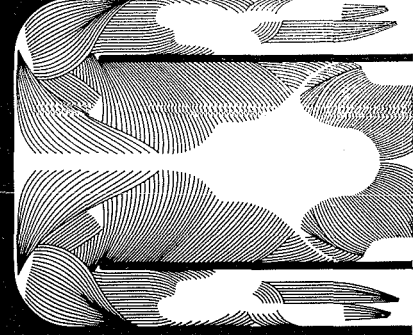
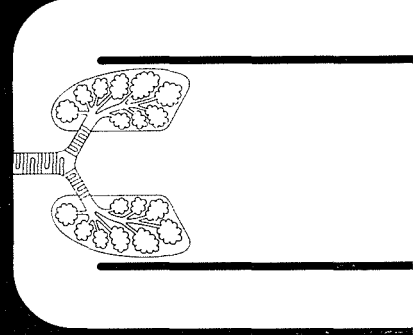
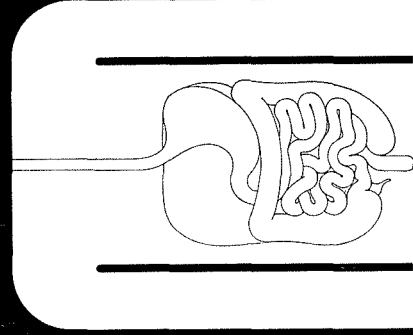
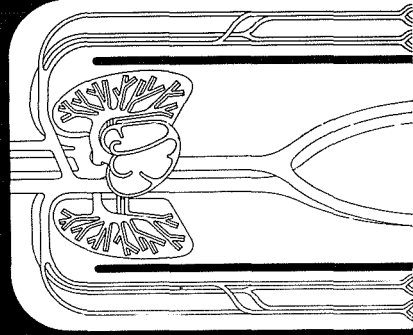
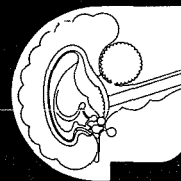
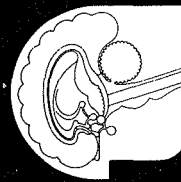
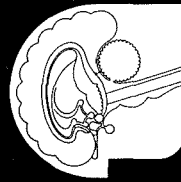
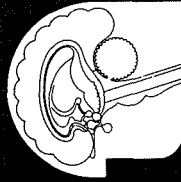
'Perhaps not,' she said, 'but you should see me climb trees!'

WHEN EXCESSIVE
ANXIETY AFFECTS
THE BODY

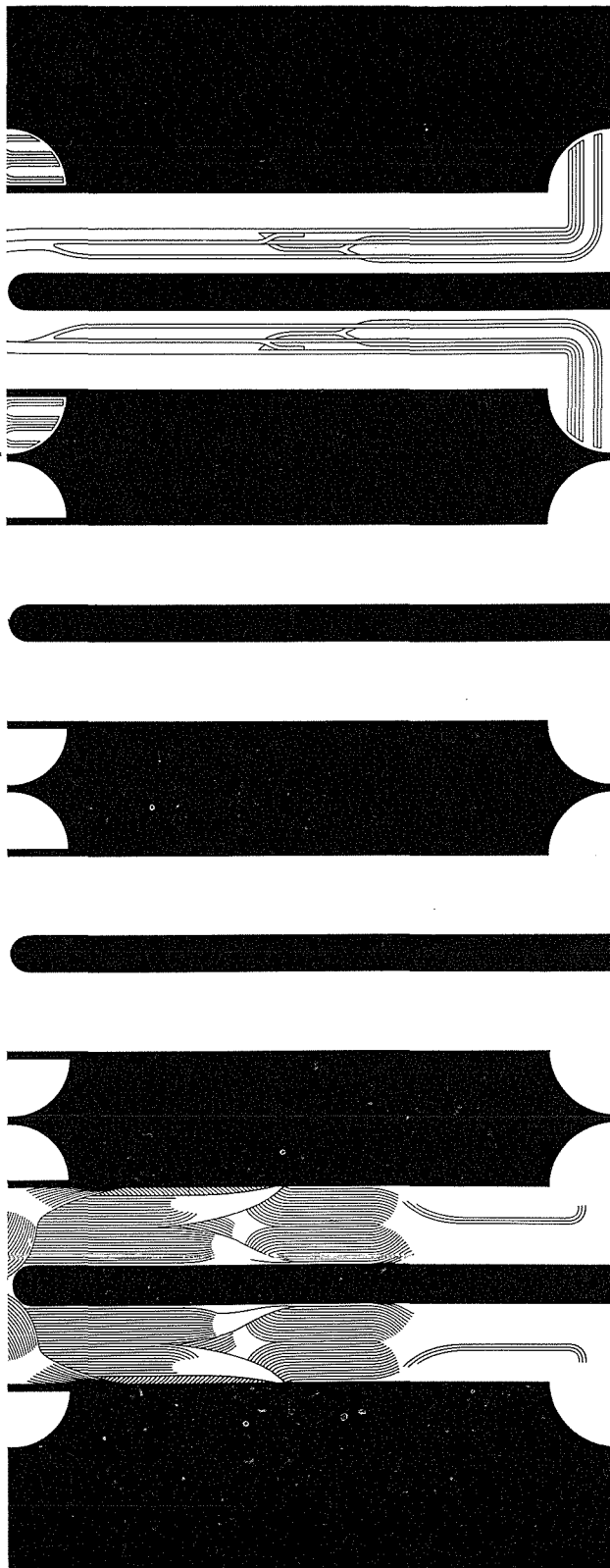
NOBRIUM

Anxiety starts in the mind but profoundly affects the body

When excessive anxiety arises in the amygdala it is transmitted, mainly by the hypothalamus, to the body, where it produces a collection of physical changes which, if repeated too often or sustained for too long, give rise to chronic functional disorders and organic disease



NOBRIUM



Anxiety makes the heart work harder but less efficiently

In anxiety, heart rate and variation in heart rate¹ increase, so does the blood pressure. Blood viscosity rises and clotting time shortens² often to a fraction of the normal value. Serum cholesterol levels rise.³ Recovery from exercise is slow and inefficient. Cardiac arrhythmias are not uncommon. These effects can produce cardiac reactions in previously healthy patients. In existing cardiac disease they may be a direct threat to the patient's life

1 Psychosom. Med., 1949, II, 25

2 J. Amer. med. Ass., 1952, 148, 265

3 Circulation, 1959, 19, 496

Anxiety attacks, often damages, the gastro-intestinal tract

Direct observations through gastrostomies, dating back as far as 1833¹ record changes in the tone, motility, secretion, and vascularity of the digestive tract produced by emotional stress, changes which frequently lead to functional disorders and structural damage. Authoritative lists of gastro-intestinal conditions produced or exacerbated by anxiety typically² range from one end of the tract to the other: from globus hystericus to irritable colon

1 Experiments and observations on the gastric juice and the physiology of digestion Plattsburg, 1833

2 Med. Clin. N. Amer. 1956, 40, 329

Anxiety that takes the patient's breath away

Anxiety increases the rate of respiration¹ but impairs respiratory efficiency.² Hyperventilation, which is common in anxiety³ can produce dizziness, visual disturbances, feelings of unreality, sighing, yawning, sensations of suffocation and many other symptoms, apparently involving the heart, gastro-intestinal tract or the body generally. Anxiety often plays a distinct role in the aetiology and exacerbation of asthma

1 Arch. gen. Psychiat. (Clin) 1964, 10, 382

2 J. psychosom. res., 1960, 5, 52

3 Amer. J. Med., 1950, 8, 691

Anxiety as a burden on the muscles

The physical tension characteristic of anxiety has been measured electromyographically. This tension is associated with physical symptoms and disorders. Skeletal muscle hypertonia is associated, in susceptible persons subject to emotional stress, with low back pain.² Patients with limb pain or 'rheumatic pain' showed high forearm readings while those with headaches showed high frontalis levels.³

1 'Studies of Anxiety' Headley Bros., Ashford, Kent, 1969, p33

2 Res. Publ. Ass. nerv. ment. Dis., 1950, 29, 750

3 Neurol. Neurosurg. Psychiat., 1954, 17, 216

NOBRIUM

A MOVE TOWARDS TRUE
PRECISION IN THE
CONTROL OF ANXIETY
WHICH PRODUCES A
GOOD TO EXCELLENT
RESPONSE IN 72.1% OF
ANXIETY-BASED
PHYSICAL DISORDERS

In December 1970 a survey* was made of 58 published clinical trials of Nobrium. Analysis of these data showed that of 563 patients with symptoms affecting the heart, gastro-intestinal system and lungs or with headache presumably related to muscular tension, 406 (72.1%) showed a good or excellent response to treatment with Nobrium. Of 1,122 symptoms reported as '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

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15 Manchester Square
London W1M 6AP



Agents: Cherubino, 89 Archbishop Street, Valletta

GRIMA - The Eighteenth Century Surgeon

J.V. PSAILA, M.D. (awarded the B.M.A. Essay Prize for 1972)

The Century of Reason

The Eighteenth Century is regarded as the century of reason. Indeed, it was the century which saw the emancipation of the surgeon, when surgeons attained a status equal to that of physicians, when surgery was at last able to shake off the shackles that bound it to bone-setters and barbers, when new attitudes and more rational thinking was fostered in the European Medical schools. The appearance of the new movement known as the Enlightenment may be attributed to several political and social processes, to the newly-established intellectual freedom, to the systematists who endeavoured to bring experimental studies closer to everyday life.

Malta, the "microcosim"² of Europe, witnessed some of these scientific and social fluxes in the works of several distinguished scholars — with one important difference — the Maltese intelligentsia still retained the "moral comfort of an unquestioned faith",¹ an attitude that lingered on from the renaissance.

Scientific journals and publications were slowly born and dispersed profusely, enabling the faster spread of knowledge throughout Europe. Apart from a wider appraisal of new discoveries, there was a renewed study of old ancient authors, a return to the true Hippocratic principles — a return which has so frequently been observed in the important periods of the history of medicine.³

This century has also been talked of as the paradise of the amateur, where some were wealthy enough to experiment as they liked. Eighteenth century amateurism ran through everything; chemistry, philosophy, botany and natural science.^{1b}

Grima's Childhood

Michel'Angiolo Grima was born in or around 1730.⁹ His father was an unsuccessful merchant, who contributed little (financially or otherwise) to his son's education. Grima repeatedly asserts he was born in Valletta, although so far no evidence seems forthcoming to corroborate this fact. His early years were spent in Valletta,¹¹ and at the house of an aunt of his, Sora Caterina, a Dominican nun.¹² Less is known about his mother whom Grima may have hardly known, since he never makes direct mention of her. The only close relative to achieve worthy mention in our records of the past was his uncle, Don Pasquale Grima, who at an early age became Parish priest ("Archiprete") of St. Paul's in Valletta⁴ and who must have in some way encouraged the young Grima to take his studies seriously. Grima also claimed to be

related to "such illustrious persons as the Order's Auditor, I.F. Grech (whose name not infrequently appears in correspondence and petitions to the Treasury and to the Grand Master⁵), and to Canon Don Antonio Grech, the Assessor for the Curia. A third man of some eminence, also related to Grima, was Fr Alfonso Brincat, a priest at the Infirmary, and who incidentally spent some time in England.⁷ Grima also states that his grandfather, on his mother's side, was a surgical man ("cerusico").⁶

Grima speaks of a sister, Maria, who lived in Casal Pinto.⁸ It is also probable that he had a second sister, Regina.⁹ While abroad, Grima seemed constantly concerned about his sisters' welfare, and repeatedly asked about them from his close friend Canon Agius de Soldanis, and wanted to see were they found a husband.¹⁰ This again suggests that these were the only live relatives whom Grima had or cared about.

His Medical Apprenticeship

Grima's choice of career to work as a surgical dresser seems to have been one of circumstance, rather than because of a natural inclination towards medicine. The circumstances which induced him to leave his studies and seek work seem plausible enough — his father having lost a significant sum of money in his business affairs (25,000 scudi, equivalent to £2100).¹⁴ As a young surgical assistant, Grima must have performed the menial tasks of a "barberotto", of which six were employed at the hospital. These were required to sleep at the Holy Infirmary, to "assist the surgeons, and be helpful in everything concerning their profession".¹³ It is perhaps not surprising that no mention is made of Grima in the official records, it also seems doubtful that the full quota of barberotti (six), pratici (two), a barber surgeon or phlebotomist and his two assistants, was to be found employed at the Infirmary.¹³ The financial return for his work was small; two barberotti at that time were paid two to three tari (a few pence) daily.^{15b} Nor were the prospects very promising; unless they succeeded in going abroad to study further and graduate elsewhere, they were doomed to practise as barber surgeons all their lives, or at best achieve the post of practico.

The origins of formal medical education in Malta can be traced to the late part of the seventeenth century, when Grand Master Cottoner established the anatomy and surgery school in 1676.^{15a} In Grima's time (around 1745) the anatomy school was headed by the great teacher Gabriele Henin, although it seems

1. Source: a) A Pictorial History of Medicine/Felix Marti-Ibanez. b) Kenneth Clark "Civilisation", "The smile of Reason" p245, p247.
2. Malta — an essay in historical ecology.
3. A History of Medicine/Arturo Castiglioni, XVIII.
4. Lib MS 16 (R.M.L.)
5. Ms Arch. 1188, f.303. (R.M.L.)
6. Lib Ms 146(i), letter dated 12 Sept 1752, f. 177. (R.M.L.)
7. Chirographi Arch. 635 f8. (R.M.L.)
8. Lib. Ms. 146 (i) f 183 (R.M.L.)
9. J Cassar Pullicino 'Michel'Angiolo Grima, Chirurgo Maltese del Settecento", Rivista di Storia delle Scienze Mediche e Naturali, 1949 nl. In this detailed biography, J Cassar Pullicino gives the more exact date as May 1731. In a diligent search of the baptismal records at St Paul & St Dominic's Parish Churches, he was unable to find any mention of Grima — also confirmed by the author. Consequently this date is the best estimate of Grima's birthday (see letter in ref 6.).
10. Lib Ms. 146(i), 175v, f 108. (R.M.L.)
11. See ref 9. Also preface to Grima's textbook "Nuovo Metodo di cucire gli intestini".
12. R.M.L. Ms 146(i) f. 183: "Nei piu teneri anni della mia fanciullezza... nella casa della mia zia... posta nella contrada della porta falza del magazzino dello spedale..."
13. Bedford W.K.R. "The regulations of the Old Hospital of the Knights of St John at Valletta" (Notizia della Sacra Infermeria e della carica delli Commissari delle povere inferme"), W Blackwood & Sons, London, 1882.
14. R.M.L. Ms 146(i) f. 176v.
- 15a. Cassar P. "Medical History of Malta" "Malta & its Medical School", Chestplece Sept 1969.
- 15b. Ibid "Medical History of Malta" p. 488 see also Giovanni Grech & Antonio Brincat, Chirografi 1739-1756, R.M.L. Arch 635, f304.
16. See the lengthy introduction to Grima's textbook "Istituzioni d'Anatomia", part I, which contains a unique history of the earlier years of our medical school.

unlikely that the medical school fully served its purpose. The hospital regulations¹³ bound all medical men and their assistants to attend the anatomical dissections held every Thursday at the hospital. They also required the barber surgeons to learn basic surgery, the procedure of lithotomy, and on the use of catheters for urinary retention.

Grima makes frequent mention of "my teacher Sig. Lott (or Lot),¹⁴ who was the Prison Surgeon, so it seems he was his surgical assistant. Also worthy of mention, Grima says, were the winter anatomy demonstrations given by Gabriele Henin. This man, Grima says "was the first true teacher of anatomy", because he started dissecting the human body, teaching "in Florentine language... to the praise and approval of all present". His lectures were "erudite, easily understood, and worthy of being studied and heard by any intelligent being".¹⁶ Henin, however, must have been unaware of Grima's enthusiasm when he wrote to the authorities, complaining that dissection was not taken seriously enough by the young students, and asking that the anatomy school

age of 19, decided to leave for Firenze to study there.²³ At roughly this time his great teacher Henin, was losing his sense of reason and only partially and briefly replaced by Enrico Maggi.²¹ In Grima's own description, the Anatomy School in Valletta "fell on evil days, and the number of pupils dwindled".²² The Maltese anatomist Michel'Angiolo Magri was from 1740-1749 Public dissector at the Hospital of Santa Maria Nuova,²² so it seems probable that he was instrumental in enabling the young Grima to find acceptance at the Florentine University. Grima speaks of his departure in heroic manner, relating how he was successful "... in a difficult case, refused treatment by my teacher Sig. Lott, the Prison Surgeon...". Many of his close friends ("... including knights of the Order") seeing this, encouraged him to leave for Firenze to achieve even greater success. This decision, it seems, met with the disapproval of his family, who in the end were left with no alternative but to give way to Grima's wishes. Reluctantly, they packed his belongings and gave him some money, but failed to write to him while abroad, let alone finance his studies. He left Malta on the 10th of May 1750.²³

Firenze

The details of Grima's experiences in Firenze are revealed in the numerous letters he wrote to the Gozitan aristocrat Canon Agius de Soldanis, a literary man with an avid love for Maltese Semantics and folklore. Being a much-respected person, De Soldanis was of some importance in his time, and Grima lost no time in securing a close acquaintance with this learned lexicographer. Likewise, Grima felt it worth-while to correspond with Ignazio Mifsud, who later makes mention of Grima in his memorable book,²⁴ and to the "Protomedico" or Physician-in-Chief, P.P. Azzopardi.²⁵ Fortunately, De Soldanis preserved the bulk of his letters from Michel'Angiolo Grima,²⁶ while Ignazio Mifsud retained the one written in 1755.²⁷

In 1752, two years after setting foot in Firenze, Grima wrote to De Soldanis about the financial difficulties he was encountering, mostly because his family were not providing the necessary money.²⁸ In a long-winded way, he went on to tactfully ask De Soldanis to help him find a suitable wife, who, by virtue of her dowry, would subsidise Grima's upkeep abroad. Indeed, De Soldanis would have been quite suitably able to handle such delicate matters because of his high social status. In a naive manner the young Grima drew out the prerequisites that such a girl should possess. She had, above all, "...to be a native of Gozo, who had never seen or visited Malta", besides being young and beautiful and 15 years of age. She had to come from a distinguished family, without sisters or brothers, or if she had brothers they preferably had to be priests! He added that he would quite willingly accept a relative of De Soldanis..., little wonder then, that Grima felt it wise to end his letter with the cryptic signature "...sa chi scrivo",²⁹ or as when he reiterated the same request in a similar letter: "...sub sigillo confessionis".²⁸ De Soldanis was to visit Firenze in 1752, where he met Grima. After his departure Grima wrote De Soldanis a letter, together with a note to De Soldanis's brother who had accompanied him to Firenze.^{30,31}



Fig. 1. Gabriele Henin who taught anatomy for 30 years (1723-53), first introducing the study of dissection.

be restored to its previous high standard as quoted in the Official Decree.¹⁷ Henin also wanted autopsies to be performed on both those who died inside and outside the hospital. He finally adds a request that his daily food provision be restored to him. These pleas were granted on the 18th March 1743, which is about the time Grima had started his apprenticeship.¹⁷

Most of those who practised and taught at the Holy Infirmary in Valletta had spent part of their training abroad. Henin had studied (at the Order's expense) at Santa Maria Nuova in Firenze, before returning to Malta to teach Anatomy.¹⁸ Vincenzo Checcoli, "maestro chirurgo" to the Infirmary, replaced the renowned lithotomist Giuseppe Grillet¹⁹ after nine years in Paris.²⁰ Consequently it is of little surprise that Grima, at the

17. Chirografi 1939-1756 N. 1. R.M.L. Arch 635 23 Feb 1743, granted 18 March 1743.
18. Cassar P., "Malta and its medical school" Chestpiece Sept. 1969.
19. R.M.L. Arch 651, f 217 (1744-1752) decree granted 22 Dec 1749, see also f 218, 170.
20. Arch 1189 f 48 6 Feb 1753
21. R.M.L. MS 11 p 241, 412.
22. MA Grima, introduction to "Istituzioni d'anatomia" p35.

23. R.M.L. Ms 146(i) letter dated 12 Sept, 1752, f 176v.
24. Ignazio Saverio Mifsud. "Biblioteca Maltese dell'Avvocato Mifsud" Mifsud Intended to mention Grima in the second part of his book which was never published. He here (part i) makes mention of Grima as the keeper of a magnificent library (1764).
25. see R.M.L. Ms.22, f.142v.
26. Ms 146(i)
27. Ms 22 ff141-142.
28. Ms 146(i), letter dated 9 June 1752, ff.115-118.

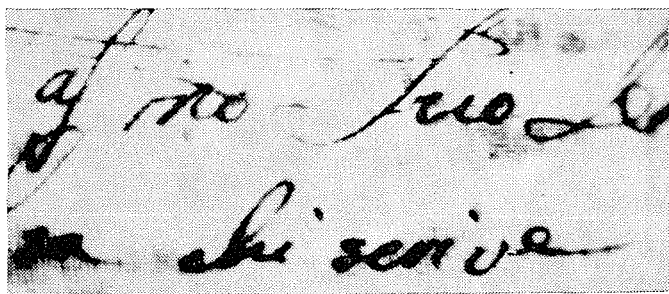


Fig. 2. Grima's anonymous letter dated 12 Sept. 1752, sent to De Soldanis and signed: "affmo. suo Ser., sa chi scrive."

In November 1753 Grima wrote that "...my affairs are progressing well here in Firenze...", but that he was anxious to hear more about his native home.³² He was at the time translating a small work on abdominal injuries in animals, encouraged by his teacher and professor of sacred history and theology, Dr Lami.³³ Grima subtly indicated to De Soldanis how he could score useful acquaintances with the more important teachers at the Florentine University, especially Dr Lami.³⁴ Eventually De Soldanis was to publish an essay on "glosse pietre" (sea shells) and their "origin" out of limestone, which was no small way inspired by Grima.³⁵ Grima also urged De Soldanis to submit several literary works for publication in a journal edited by Dr Lami.³⁶

In his letters Grima makes repeated requests for odd items such as cauliflower seeds, Portugese oranges, specimens of Maltese fungi,³⁷ "...denti del pesce lamia, lingue di San Paolo, occhi di serpe impietriti...", such that he could obtain "...as much a variety of rarities from Malta as possible... for my small personal museum.³⁷"

The anatomy school in Firenze was one of the first to make wide use of dissection. It had taught such famous names as Alfonso Borelli, Bartolini, Francesco Redi (the father of helminthology), the great anatomist Stenson, Lorenzo Bellini (who made significant anatomical studies on the kidney), and several others. These men, said Grima "enlightened the noble schools of Europe by virtue of their dissections".³⁸ More directly, Grima fell under the influence of three teachers — Antonio Cocchi, Angiolo Nannoni and Antonio Benevoli. His chief teacher of surgery was Nannoni whom Grima was fond of quoting, in particular when referring to surgery for limb amputation, and for aneurysms. His other teacher Antonio Benevoli showed great interest in Grima's experiments on the sensitivity of tendons.³⁹ Grima was also taught by Giuseppe del Papa, Lorenzo Fabbri (Professor of Experimental Medicine), Antonio Bicci (Professor of Surgery), and the three Professors of Medicine: Angioli, Liamcort and Le Conte Felici.⁴⁰

His First Degrees and Earlier Works

In 1754 Grima graduated in Medicine and Philosophy,

at the university of Pisa.⁴¹ He was soon appointed one of the ten dissectors at the hospital of Santa Maria Nuova, and could with greater ease experiment on suturing of the intestine in animals. His first experiment was performed on the 5th May, at 3 p.m.³⁹

In 1753, at 23 years of age, Grima's plans for the future were still uncertain. In June of that year he wrote to De Soldanis to ask him if he could enable him obtain "the post held by Henin" — that of anatomy demonstrator and teacher at the Infirmary.⁴² Both Henin and his successor Magi were retired at the time, and the personal surgeon of Monsig. G. dei Duchi Salviati had only provisionally filled the post. Alternatively Grima had hoped to replace the "sotto-infirmiere" at Santa Maria Nuova — and had in May 1753 tactfully suggested to De Soldanis several possible ways of obliquely asking the emperor's nephew to give the post to Grima.⁴³ Grima also asked De Soldanis to petition the Grand Knight of Germany to help subsidise Grima's studies for a further two years until he became a surgeon.⁴² In any event, Grima thought it best to stay in Firenze until necessary and in mid 1756 was chief demonstrator at the Hospital. He was now actively experimenting on the "sensitivity" of tendons with live animals — in Italy where vivisection was more or less accepted. In April of that year he read his findings in the form of a dissertation to the "Accademia dei Apatisti", entitled "Treatise on the sensitivity of tendons", "which", he adds in a letter to De Soldanis, "was very well received."⁴⁴ In 1760 Grima later published this small study in Paris as a small (7" x 3½") booklet barely 30 pages long. It contains an account, in French, of a few rather amateurish experiments during which various stimuli and irritants were placed on the tendons of dogs, lambs, small fowl and pigeons. With the help of M. Le Conte Felici (Prof. of Medicine at the Florentine College and at S. M. Nuova), Grima succeeded in

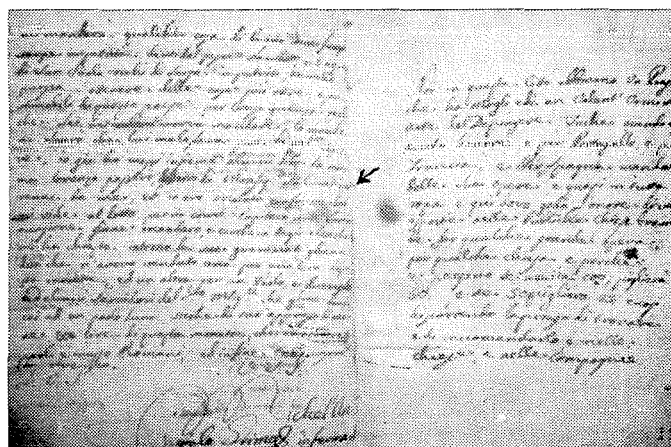


Fig. 3. The end page of a letter dated 12 June 1754, f. 113v: (left) Grima here mentions that Monsig. Salviati's servant did not meet him as he (Grima) was ill in bed (arrow).

29. Ms 146(i), letter dated 12 Sept. 1752, f.177v.
 30. Ms 146(i), letters, f.178, f.184, 13 June 1752.
 31. G. Cassar Pullicino, "M.A. Grima u De Soldanis", Kitba w Kirrieha tal-Malti, L-Ewwel Ktieb: Sas-seklu tmintax. Taghlim għall-Kbar-4. R.U.M. 1962.
 32. Ms 146(i), 13 Nov. 1753, f.160.
 33. See the first few lines of Grima's book on "Nuovo e Sicuro metodo di cucire gl'intestini", here he makes reference to this work on observations on injuries to the spleen and liver in animals.
 34. Ms 146(i), 30 Nov 1753, f.161, 175.
 35. *ibid.*, f. 183v, 183, 165, 112.
 36. *ibid.*, f. 112, 112v, 164.
 37. *ibid.*, f161v, 113v, 165v, 175v, 176, 178.
 38. see ref 16.
 39. Grima's essay "Sur la sensibilité des tendons".

40. As Grima himself states in several of his textbooks.
 41. see ref. 9.
 42. R.M.L. Ms 146(i) f.165
 "...supplicarvi...di ventare per mezzo della Sig. Aurielia ed il Sig Gran Priore d'Alemagnia e vedere se mi potra ottenere il luogo di Gabriele, e che la religione mi mantenga qui in Firenze e poi in Inghilterra per due anni, dopo terminato Il corso mio di chirurgo."
 43. see letter 10th Oct. 1752, Ms 146 (i) f. 170 also letter to Ignazio Mifsud, R.M.L. Ms 22 f.142: "...furono vacati tre posti in questo tempo, e non si sono ricordati di me... ..posso guadagnare di più in citta grosse dove potro fare la mia figura".
 44. R.M.L. MS 146 (i) f.100
 2nd April 1756, post scriptum: "...tieni una dissertazione nell'Accademia degli Apatisti che fu molto ma molto piacuta..."

macerating muscle tissue in order to trace the neurovascular supply through the muscle into the tendon. The essay also contains a bitter personal attack on Rev. Pere Rossi, who unfortunately held views opposite to those of Grima. Grima concludes by saying that such people as Boerhave, Savage, Fabbrini, Nannoni, Le Cat are in agreement with his theories. At the end he quotes Dante:

“.....tu stesso, ti fai grosso
col falzo immaginar, se non vedi
cio che vedesti se l'avessi scosso.”

As senior dissector at the Hospital of Santa Maria Nuova, Grima was at the time performing public dissections in the distinguished presence of well-known teachers and doctors, such as Ludovico Scodellari, Natale Calloni the Public Professor of Surgery, Ipolito A Lomi, and his old teacher Angiolo Nannoni. Two of these dissections, carried out on the 19th of October 1756 and on May the 22nd of the subsequent year, Grima later published on his arrival in Malta.

On Suturing the Intestine

In the same year of 1756 Grima was to make his name even more widely heard, when he read a second dissertation, this time at a meeting of the Sacred Academy of Florence, on the 5th of October. He was subsequently made a fellow of this distinguished College. The Order's Consul was present at the gathering, this indicated that the higher authorities in Malta were keeping watch on Grima, possibly with future intention of eventually calling him back to Malta to teach anatomy and surgery. Grima later published his findings, in 1760, and the book was put on sale in Florence at the shop of Claudio Molini. It was published in Paris, at one of the Order's Printers, Francesco Le Breton.

The textbook is dedicated to Grand Master Pinto (1741-1773), who, contributed much to the success of Grima's career. It carries the official certificate issued by the Sacred Academy in December 1756.

The publication is a short (36 pages), but well-reasoned account, of Grima's proposed approach to the suturing of the intestine, entitled “Del Nuovo, e Sicuro Metodo di cucire gli intestini”. The format is fairly large but free of diagrams. It relates how Grima was encouraged to experiment with trauma to the abdomen in animals by his teacher Dr Lami, and suturing of the intestine, or “enterrhoraphy”. One afternoon, on the 3rd of May 1754, Grima deliberately cut the transverse colon and mesentry of a live dog. He promptly sutured the everted edges together, using a flat needle with a triangular apex, and a waxed thread “...to prevent its decay as a result of the moisture that continually passes through the intestinal cavities.” The suture in threaded in the same manner as leather is sewn together. The thread is left to extend outside the abdomen, after that the viscera are returned to their proper relationship, and mesentry used to cover any bleeding vessels. The wound was bandaged with felt and dry thread.

Five days later, the dog passed excreta tinged with fresh blood, which fact Grima took as evidence that the anastomosis was functioning, and that material was being propelled from the region distal to the suture point. Grima, showed the dog to his teacher Antonio Cocchi, also witnessed by two students Luca Martini and Francesco Zossetti. Notwithstanding this Grima was overcome by his own curiosity and after 40 days killed the dog. Being at the time ill in bed, he asked a colleague of his, Pasquale Cini to autopsy the creature. The latter found the intestines well-healed and healthy, if not somewhat adherent to each other. (Grima also mentions that

he was ill at that time in one of his letters to De Soldanis, see fig. 3.)

The whole procedure was repeated three months later with equal success, although, further attempts proved less fortunate. Grima always insisted on showing the healed cicatrix to his teachers as evidence for the success of the experiment. In a fourth attempt, he was unsuccessful when he attempted a full resection of a piece of intestine. The cut ends failed to join together, and “lymph” was noted to drain from the wound after the operation. The dog was found, at autopsy, to have “ventricular polyps”.

Grima's final attempt, on the 20th May 1755, showed the anastomosis well healed — as witnessed by Sig Cocchi, Dr Gesualdo Vannucci and Dr Giov. Battista Buonparte.

It therefore seems that Grima was seriously interested in experimental surgery. It is also evident that the medical school at Santa Maria Nuova encouraged this sort of research work.

Grima then goes on to discuss the indications or situations for which one may be called to perform suturing of the intestine. Quoting authors like Celsus, Boerhaave, Van Swieten, he examines the problem of reducing, by surgical technique incisional hernias into the abdomen. In suturing the intestine, he criticises the suggestion put forward by Joseph de la Charriere (Traite des Operations du Chirurgie), who advocates the use of a colostomy. Such alternative is dangerous and impractical, “being an artificial aperture, free of those muscles which dilate and constrict it when necessary”; furthermore he speculates on the malnutritional sequelae

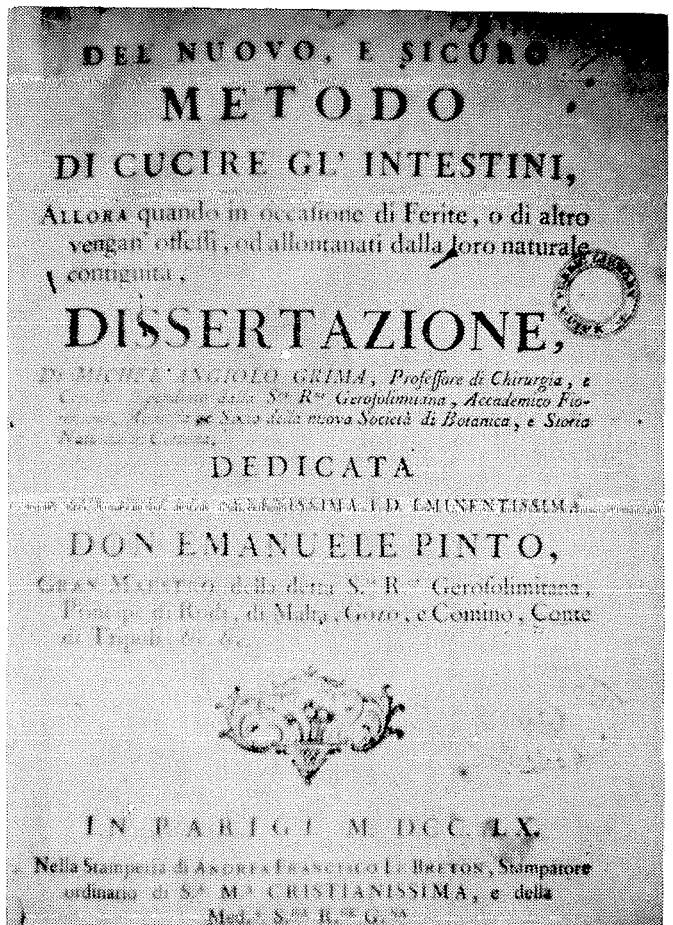


Fig. 4. Frontispiece

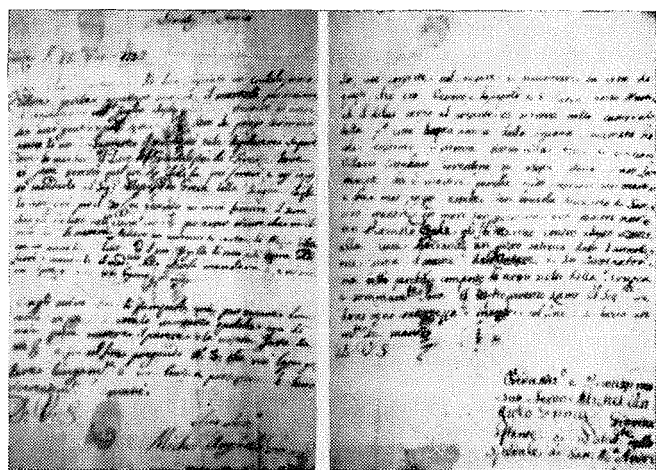


Fig. 5. Two letters sent by Grima to De Soldanis from Firenze — note the stylish signature at the end of each letter.

that will ensue, and the danger of breakdown of the wound. He relates the case of a man from Bergamo admitted with abdominal trauma and evisceration of the ileum, followed by symptoms of hiccups and faecal (or coffee-ground) vomiting, which was treated with a colostomy. This man later still possessed an incisional hernia or prolapse, and died because of malabsorption.

Concluding Grima calls his suture a spiral one, "dei pellaccaj". He gives the procedure separate names according to the site of the gut, thus "dodecadaculonoraphy (duodenum), ileonoraphe, jejunoraphy or nestiraphy, colonuraphe, and in the caecum typhloraphe". These terms, he adds, have met with the approval of Dr Lami.

Spontaneous recovery from complete transverse wounds of the intestine was noted by Fabricius (1560-1624), who found that the proximal end of the intestine became attached to the abdominal wall by adhesions. The same observations had subsequently been reiterated by several others.⁴¹

Many contemporary surgeons of Michel'Angiolo Grima's time seem to have attempted the anastomosis of the human intestine. Ramdohr in 1730 invaginated the two ends into each other, and successfully treated a soldier in this fashion.⁴⁶ In London, George de Ronsil in 1732 excised both colon and ileum in a patient with strangulated hernia who made a good recovery but was left with a fecal fistula.⁴⁷ In France, Duvenger in 1757 successfully resected a strangulated hernia by sewing it over a dog's trachea. The trachea was subsequently expelled.⁴⁸ (This method was described by Fabrizio Aquapendente in the late 16th century, and also credited to Ramdohr). Two of the most prominent French Surgeons of Grima's time, Pierre Desault (1744-95) and F. R. Chopart (1743-95) sutured transverse intestinal wounds by overlapping the ends.⁴⁶

End-to-end anastomosis of the intestine was not, however, fully accepted and practised until the late nineteenth century when it was taken up by Jean Francois Reybard and Billroth. By 1880 only ten colectomies could be collected from the world literature.⁴⁹

Thus in cases of trauma to the intestine, the cut ends may be sewn together. He also finds his method of use in incarcerated hernia which requires resection, or in cancer of the intestine (his teacher Antonio Benevoli died of this), or ulceration of the gut with fistulation

and leakage of faeces, fat, lymph and intestine. He recalls the case of a 10 year old boy who was brought to the Holy Infirmary with low-grade fever, and a fistulated ulcer at or near the umbilicus full of worms. The intestinal aperture was closed, but the abdominal wall left patent with the thread trailing outside the ulcer. This failed, as did a second attempt at uniting the ulcer, and the boy died. Grima points out that the first aim of treatment should be to eradicate the worms, and that prurulent gut should not be sutured.

Two years later, in September 1762, a letter appeared which caustically criticised Grima's work, declaring that the only "new" item in the whole work was its title. The letter was couched more in emotional rather than logical language, and one suspects that it was in reality written to revenge the remarks which Grima openly made in his book, when speaking of Giuseppe Grillet (the renowned Maltese lithotomist). Grima claimed that the young boy with a complicated entero-umbilical fistula was wrongly treated by Grillet much against the advice of the Protomedico (Dr P.P. Azzopardi) and other attending physicians in consultation over the case. The boy was suffering from infestation with intestinal worms, which Grima felt, should have been eradicated prior to any surgical attempts to heal the chronic fistulation and ulceration.

Possibly the letter may have been inspired by the son of Giuseppe Grillet, who was also uneasy about Grima's impending return to Malta (he was in fact, unjustly pushed aside when Grima was appointed senior surgeon in Malta).

At the end of the letter a declaration by the Infermiere (the knight in charge of the hospital) to the effect that Grillet had actually agreed to take the advice of the physicians and submit the child to antihelminthic treatment prior to surgery. The death of the boy was attributed to post-operative dietary indiscretion. Also supporting this statement, is a note in Latin, written by Gaetano Azzopardi and Giov. Bruno, physicians of the time.

His Surgical Career Abroad

In 1758 Grima graduated:

"Michel'Angiolo Grima, son of Lorenzo of Paolo Grima, approved with full honours in surgery"

Grima graduated "with full honours" and thus achieved greater distinction than those who received "half honours".⁵⁰ Nor did he any longer seem uncertain about his future success. When writing to Ignazio Mifsud he assured him he would easily find work — either in Firenze, or in Rome, or in the Neapolitan Court "...or in England, where all my hope lies...".⁵¹

After spending eight years in Firenze Grima thought it necessary to spend a further three years in Paris to study further surgery. In his petition to the Grand Master and to the Treasury of the Order, Grima pointed out that his claim for a bursary to subsidise his studies had the full approval of his teachers, and, what was probably more important, of the Order's representative in Firenze, Sig. de la Guerardesca. Grima had, prior to be granted the bursary, promise to return to Malta to serve the Order when he had finished his studies in Paris. It was also necessary for his aunt (Suora Caterina) to vouchsafe for this.⁵² This fact further strengthens the impression that Grima's parents had played little part in their son's career.

45. R. Hardaway Meade. "An introduction to the history of general surgery". WB Saunders Co., Philadelphia, 1968. Chapt. 20 — Surgery of the small intestine.
46. Penn.N. Enterorrhaphy, its history. JAMA 21: 215 (1893)

47. Cited by Billings JS. "The history and literature of Surgery" in Dennis F.S. "System of Surgery". Philadelphia. 1895.
48. Duvenger, "Suture de l'intestine sur un morceau de trachee-artere". Mem. Acad. Roy. Chir. 3:188, 1757.
49. Rankin F. "Resection & Obstruction of the colon". Surg. Gynae & Obstet. 50:594, 1930, see also 64:705, 1937.

In 1759, Grima wrote a short letter to De Soldanis from Paris, although little is known about his exact whereabouts.⁵³ He must have then read his paper on repercussion injuries of the brain in head trauma. This essay won Grima the coveted Gold medal (and 500 French Lire) in a competitive award from the Royal Surgical Academy of Paris. This must have been one of Grima's proudest moments, as this highly distinguished Surgical College (whose first president was Jean Louis Petit), thought it fit to award the prize to the young Maltese surgeon, "as was announced in the journals of that time".⁵⁴

As a seat of learning Paris must have had much to offer in those days. Notwithstanding this, Grima surely found that they were restless times for France, engaged in the seven year war (1756-1763), after that Fredrick II of Prussia advanced into Saxony, for fear that Silesia be seized from him.

Fredrick II was thus confronted by a ring of enemies; the Catholic Austrians in the south, the Russians in the east, the Sweds in the north, and the French and Imperialists in the west. His only ally was protestant England. This last fact, besides Fredrick's military genius, enabled him to attack and defeat the enemy on several occasions.

The Knights of Malta must have thus interrupted Grima's stay in Paris and ordered him to serve in the hospital of the Temple in Cassel (or Kassel), where he worked as a surgeon to the French Army, under Marshal

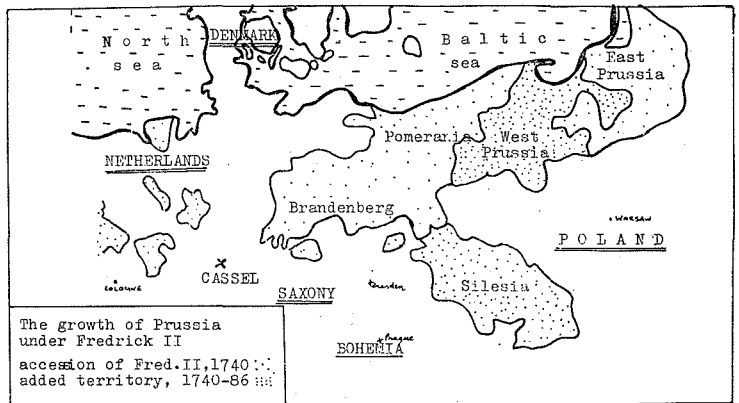


Fig. 7. Cassel.

Broglio, a general to Louis XIII.⁵⁵

He there treated the wounded of all nations, as Grima himself describes in his case histories of head injuries, in the book on Traumatic surgery. French, Italian, Prussian and English patients are mentioned in his book.

Grima must have held a high position in Cassel, besides enjoying the surgical advice of such renowned surgeons as Guerin, the first physician to the General. He also had some students under his care, and often directed them to assist in the preparation of skull sections. As Grima not infrequently boasts, he had the privilege of treating some high ranking officials. "War surgery", wrote Grima, "is the enlightening theatre or the great school of surgery — not only surgery, but of all medicine". As Grima so rightly points out, many of the greatest teachers of medicine and surgery have emanated from this great school.⁵⁴

In 1762, with the accession of Peter III, who was a deep admirer of Fredrick the great, the Austrian ruler, Maria Theresa, was left with no alternative but to sign the treaty of Hubertsberg on February 15th 1763.

The time had then come for Grima to be called back to Malta. His return must have been expected by the surgeons of the Holy Infirmary, who not illogically, saw in Grima a threat to their seniority and status at the Hospital. In 1762 they had published the letter in Messina criticising, in no uncertain terms, the "supposedly new method of suturing the intestine" which Grima had published in Paris in 1760.

Return To Malta

Their fears were justified when Michel'Angiolo Grima landed in Malta from Messina on the 9th September 1763. In the words of the Diarist Ignazio Mifsud, Grima "was welcomed by the Grand Master, who promised him many advantages".⁵⁶ His petition to the Grand Master to practice in Malta was officially approved a month later on the third of December of 1763.⁵⁷ Grima was, however, already appointed Senior Surgeon at the Hospital and future successor to the lectureship of Anatomy and Surgery, founded by G.M. Cottoner.⁵⁸ He was entrusted with the restoration of the Anatomy School, which had then fallen into disrepute. His success in treating the wounded sailors from a small encounter

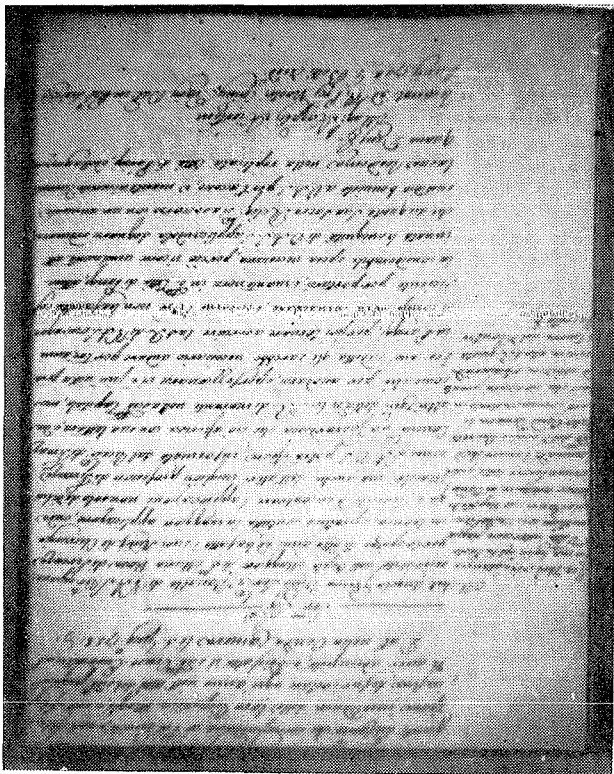


Fig. 6. The decree of the Treasury approving that Grima be sent to Paris. In the left margin is an insert saying that his aunt would vouchsafe for him(52).

50. Cassar Pullicino J. see ref. 9, p.14.
 51. Lib. Ms. 22.f.142.
 52. Decreti del Tesoro., R.M.L. Ms Arch. 652 f.250v (7th June 1758).
 53. R.M.L. Ms 146 vol (i) f.172.
 54. Tratto della medicia traumatica. Part II p.92.

55. R.M.L. Ms Arch 637. ff.18,19.
 56. R.M.L. Ms 14., p. 189.
 57. R.M.L. Arch. 1190 (Tomo IX, 1758-1765) f.193, p.313.
 58. R.M.L. Arch 1190 granted 26 Sept. 1763.
 59. R.M.L. Ms 14 13 Sept 1763.

at sea, added to his fame in Malta.⁵⁹ His operations for stone, cataract, fistula and retention of urine were much spoken of⁶⁰ and rumours were spreading that Grima would (as senior surgeon) eventually achieve the high post of "Protomedico", or "Chief Physician".^{61a} Surgery was, at long last, being regarded as equal to Medicine. As a prelude to this high post Grima was made physician to the Grand Master's Slaves, the Quarantine, and the prisons, in January 1764.^{61b}

Grima's chief interest, however, had always been towards the School of Anatomy and Surgery. Inviting the high-ranking officials of the Order, and all the Professors, Grima held a Public oration on the history of surgery, on the 10th of January 1764.⁶² This occasion left little doubt that Grima intended to restore to high standards the much-neglected School. Three months later, the Chief-Physician, Dr Pietro Paolo Azzopardi died.⁶³ Competition for the vacant post was extremely keen, so the Grand Master Pinto wisely scrapped the post, instead appointing the Senior Surgeon and the three Hospital Physicians as members of the "Medical College" (Collegio Protomedicale), endowed with the same powers as those of the Chief Physician, by virtue of an Official Act of 3rd July 1764.⁶³

In 1764, Grima published his first article of anatomical interest. It is a small booklet, seven pages long, describing two dissections carried out by Grima and another anatomist Sig. Francesco Becherine, in Firenze, in the presence of the senior teachers of surgery.

Methodically, Grima, starts with a description of the external features of the cadaver and then proceeds to relate how the dissection was carried out in each particular instance. The clinical history of the deceased is omitted even though Grima himself states, at the end, that the purpose of autopsy is to correlate "...the causes of disease and their symptomatology, and to confirm the opinions expressed by (his) illustrious teachers...". In both cadavers evidence of far advanced disease is obvious. The first, a woman of undetermined age showed the presence of several fistulae between the tissues of the pelvis, besides there being an ovarian abscess — probably the end result of a severe infective (or malignant) process. The second autopsy also deals with an abscess in the pelvis, arising from the iliac crest or psoas, and may well have been complication of renal calculi and pyelonephritis.

The first members of the Medical College were, besides Grima, (senior surgeon) Dr Giorgio Imbert, Gio Domenico Biagio and Giuseppe Bigeni. The Surgeons of the Hospital were, Grillet (Michele, whose father taught Grima), Giuseppe Farrugia and Antonio Labani.⁶⁹ These men, over whom Grima was made senior, were the teachers of the day, and approved students in Surgery, after that they were permitted to sit for the examination by the Medical College. Thus, Grima as a member of both boards, must have commanded a considerable influence.

Grima inherited all that was left by Gabriele Henin, including the Medical Library which, in 1764, fell under his care. The Grand Master, Manuel Pinto, was anxious to see the University restored, and fostered the growth of the Seat of Knowledge by carefully selecting nationals and foreigners to teach in Malta. Contemporary professors of Grima were Rev. Ferdinando Mingarelli (Arabic &

Greck), Rev. Cavalli (Experimental Physics), Rev. Moncada (Logic and Critical Art), Rev. Piazza (Mathematics) and Rev. Scolopio (Eloquution).⁶⁴

Grima quoted his position in Official Documents as "Professor of Anatomy and Surgery, occupying the chair created by the Bali de Resseguier". He was officially given this post on the 21st of January 1765, since Magi had just died, although Grima was provisionally occupying the Chair of Anatomy and Surgery, when Magi was already gravely ill.⁶⁵ Hence in 1766 one comes across the first approvals issued by the Medical College. Thus for instance, on the 5th of November, 1766, a certain Paolo Zammit, in a petition to the Grand Master claimed that he had

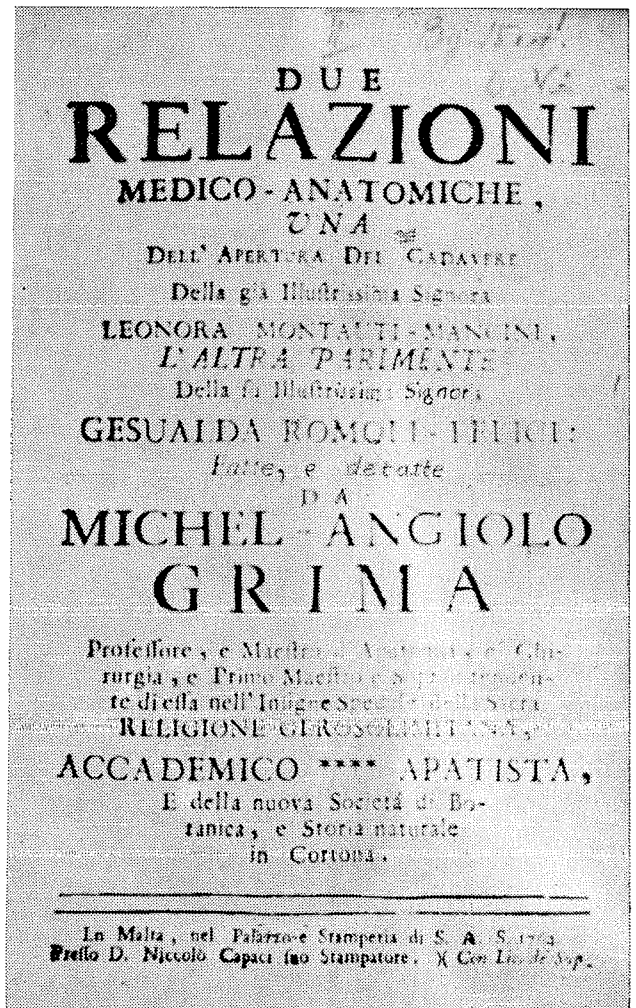


Fig. 8. Frontispiece. Two public dissections (? clinico-pathological studies) carried out on the cadavers of Leonora Montanti-Mancini and Gesualda Romoli-Felici. Note that Grima, barely three months in Malta, already bore the title of Professor and Teacher of Anatomy and Surgery at the Holy Infirmary, besides being the Senior Teacher and Superintendent. He also boasts being a member of several academies.

This booklet was published in Malta at the Order's small printing press. The cost of printing this article, besides 100 invitations for the Public Lecture on Surgery, is still found recorded in the printer's ledger. (R.M.L. Ms. Arch. 2044, f.9, entry no 47, 3/1/1764). Such a publication first had to be approved by the Grand Master.

60. A grateful patient of Grima, a Sicilian priest, wrote four sonnets in praise of Grima, which are quoted entirely in Mifsud's diary (p 223, Ms14).

61. Ibid 6th Dec. 1763 (a)
5th Jan 1764 (b).

62. Ibid 17th Jan 1764
see also Arch 2044 f.9.

63. R.M.L. Ms 14, entry 29th May 1764

also "Bandi" Ms Arch 429 (1756-1765), p114.
and Ms. Arch 627, no pagination, chirografo del 3 luglio 1764 (f.160).

64. Archivi ed Università di Malta
Mons. A Mifsud

"Estratto dall Archivum Melitensum, Vol II, fase I.
Malta 1913.

see also Grima "Della Medicina Traumatica...", introduction.

De me. Sicut

Michael Angiolo Grima Sur. vno
 e Nicolò Felici. ma. di S. S. espone
 umilmente, essere venuto colla morte
 del Sr. Giorgio Magi l'impiego, e
 Salvo di Letture, d'Anatomia, e Medi-
 cina Chirurgica fondato dal Sr. Severino
 uno Canonico, e siccome l'Onore
 si è sempre benignamente aggraziato dall
 A. S. in vigore de suo l'eminente
 decreto dell'impiego sud. col decreto
 della S. S. successione emanato
 nel 1763. Nel 1763 così si fa
 debito di supplicare l'A. S. degnarsi
 comandare, che il salario vacato colla
 la legge in avanti a beneficio del sup.
 dicente, e della S. S. sia rimesso
 al Sr. Magi.

Fig. 9. Grima's formal petition (and approval) to replace E. Magi as lecturer in Anatomy.

learnt surgery for years and "frequented the public school of Surgery". He had also "attended the public and private lessons on the dead body" and "had operated on cadavers with dexterity". In addition he had been examined and approved in Surgical Theory, and matriculated in "traumatic Surgery, as is desirable in all good schools of surgery". Finally is a certificate issued by the Medical College stating that what the applicant claims is valid.⁶⁵ Maltese who had studied abroad, were also required to be examined and approved by the Medical College, prior to submitting their petition to the Grand Master.⁶⁷

Grima's surgical fame was now established. He worked avidly and never ceased to record his observations, which later found way into the books he published. He writes how, at that time (4th December 1767) a priest (Phillipo Neri) from Lingua grossa in Sicily came to him with a cancer of the glans penis, which had previously been partially treated. At any rate, the treatment left the priest with a great deal of inflammation and residual tumour, so that Grima, with the aid of an assistant amputated the ulcer. He cauterised the stump of the penis to burn out any residual cancerous tissue, and left a small candle inside the urethra (presumably to prevent stricture). Two days later the candle "jumped out" and the fever diminished, as the patient was healed 1½ months later.⁷⁰

The commonest surgical procedures of the time seem to have been operation for bladder stone and extraction of

cataract. The former Grima performed in two and a half minutes, which was four minutes faster than "a French Master of the Hospital" of that time could perform it.⁷¹ Grima also amputated limbs in extensive lacerated or infected wounds. Often he consulted the opinions of the other Surgeons of the time, such as Gius. Bigeni, Carlo Perdon, and Gius. Farrugia. Osteomyelitis was poorly understood at the time, although Grima knew the value trephining bones to let out the pus. Rather indiscriminately, however, he trephinated skulls in cases of head injuries, out of fear that a blood clot will compress the brain tissue. Little did he realise that the fever that often ensued such procedures was a direct result of his treatment. He introduced techniques and medicaments that he learnt in Firenze and Paris, and that were new to Malta. In 1773 he could boast that Lorenzo Farigiani, the Chief Chemist at the Hospital knew how to prepare the "ungmento modificativo" which was used in the Hospital of Santa Maria Nuova.⁷⁰

In February 1773, Locano (a physician who seemed to be at cross swords with nearly all his colleagues) succeeded in persuading the new Grand Master (Ximenes) to appoint a "Physician to teach Anatomy as Head of the Medical Academy, as a Physician had always held the post of anatomy teacher." This state of affairs persisted for only six days, when the Grand Master, restored Grima to his place, but as a technical point he ordered "that

In esecuzione dei Sovrani comandi abbiamo
 sotto la nostra scorta fatto fare su i cadaveri
 al Sr. Antonio Creni tre operazioni delle più bel-
 le, e dei più rimarchevoli cioè la cataratta
 per depressione, e per estrazione, la fistola
 lacrimale, e l'aneurisma del cubito, quale
 ha fatto con ogni destrezza, e maestria, ed
 industria: lascia ciascuno di noi la abbia
 parte la contraddizione opportuna sopra le prefe-
 re operazioni: e ripose maestrevolmente da
 per suo. Onde si giudica Professore, e
 Dottore in questa parte di Medicina. La
 più antica, la più certa, e la più avvan-
 za de tutte le altre parti ed in fede
 mano propria questo dì 14. de Giugno 1770
 Michael Angiolo Grima P. P. vno di sua
 scuola, e di Medicina Chirurgica all'operato sud.
 di di anni nel 1767 ed unito dal Collegio, per
 Grillo
 Giuseppe Farrugia Chirurgico vno del Sr. Duca
 Anselmo Labony medico vno del Sr. Duca

Fig. 10. The four teachers of surgery, Grima, Grillet, Farrugia and Labani, certify that Antonio Creni has performed the operations (on the cadaver) for cataract, cubital aneurysm, and lacrymal fistula (69).

Arch 1191 f.360.

65. R.M.L. Ms Arch 1190, ff 342, 530.

66. Ms Arch 1191 f.75.

67. Ms Arch 1191 f. 69, 305, 336.

68. Ms Arch 1192, p 165 f94

18th May 1773

69. Ms Arch 1191 f 360.

70. Della Medicina Traumatica, M.A. Grima.

no more Academies will be permitted during his reign".⁷³

More important, however, was the fact that the Jesuits were expelled from the Island on the 6th of November of the same year. The University failed to exist any more, and on the 14th September all lecturers were discharged.⁷⁴ In addition, Grand Master Pinto, who had always favoured the existence of the University, had died on the 24th of January, and was replaced by Grand Master Ximenes, who as seen above, seemed less favourably disposed towards Grima than G.M. Pinto.

poison". Most of what is written in this book ensues from what Grima observed in Cassel, particularly in the battle of the 16th July 1762.

Grima discusses in the first part the types and consequences of wounds. He recognises that examination of wounds should be regular but infrequent, and that the patient must be constantly supervised for symptoms that may be of concern, such as thirst, fever, restlessness, a throbbing pulse, dry tongue or convulsions. The site of injury carried a different prognosis. The velocity of the musket ball, and its shape (if bitten or otherwise deformed) will determine the extent of the injury. In superb manner he lists the important steps in treating wounds. The edges of the wound must be made clean, foreign bodies removed, if still retained the musket ball extracted, complications attended to, devitalised tissue removed and the wound restored to normality "promptly, securely and pleasantly (Celsius)". Suppurating wounds are difficult to treat, and this is caused by the outside air which, he thought, compressed tissues and led to suppuration and gangrene. Incisions are important to

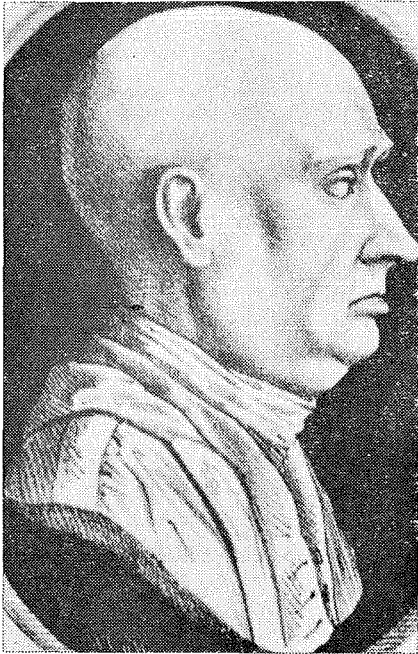


Fig. 11. The bust which the Sacred Florentine Academy erected in memory of Grima.

(L'Arte 1865, N.62 7th June)

On Traumatic Surgery

It seems paradoxical, therefore that at this dark hour, Grima should publish two of his finest books; The first was a short dissertation on "Popliteal Aneurisms", published in London and written in Latin. His much larger work, "Traumatic Surgery" was published in Italian at Florence. This large book (8 x 11", 240 pages) is the most beautiful of Grima's works, illustrated with several plates mostly showing skull lesions. It is dedicated to the Vice-Chancellor of the Order, Fra Don Francesco Guedes de Magalhaens, and carries, in the first few pages, the approval of the Florentine Academy.

His subject is here introduced in the same sequence as his lectures, and reflects the high standard of Surgery that was imparted to his students. Since the 16th Century a battle royal had lingered on the nature and treatment of Gunshot wounds. Some felt these wounds to be "poisoned" and amenable only to strong remedies, while others shunned the use of irritants such as caustics and boiling oil. Grima found it difficult to see how the musket ball in firearm injuries could be poisoned, or burnt: "the heat imparted to the musket ball by the explosives, and the air friction, will dissipate this

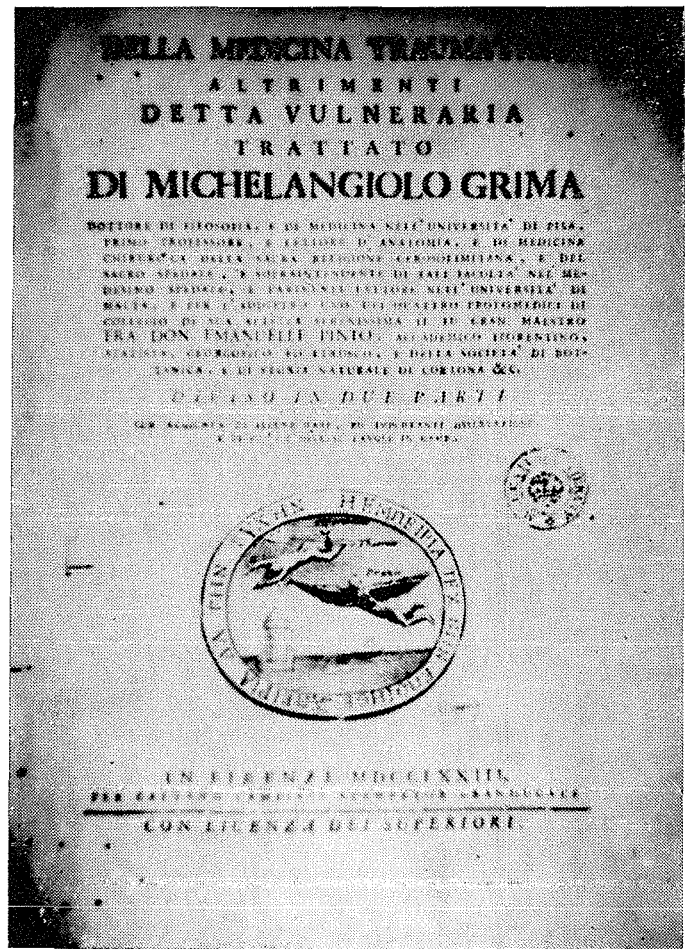


Fig. 12. Frontispiece, Grima's most important work.

71. Diary of Fr Agius (related to Agius de Soldanis) R.M.L. 1146 (2), ff 202, 236, 292. Entry dated 9th Nov. 1772:

"Two operations for stone were performed today at the Infirmary, the first by a french Master lasted seven minutes and the patient surviving 32 hours, the second performed by the famous Grima took 2½ minutes and the patient did not die".

Grima is also credited with extracting a crushed foetus from a dying mother, and performing a mastectomy in three minutes (il taglio di una mamilla della Sig Donna Vincenza Testaferrata Bologna).

72. R.M.L. ARch 1192, f.241.

73. R.M.L. Ms 1146 (2) p 202, 236, 292. p. 216, 219, 226.

"when appointed, by the Grand Master, as head of the Medical College, Locano demanded that all physicians bow down to his whims and be present at the Academy. All the doctors then, in a signed memorandum, petitioned the Grand Master who decreed that no more academies be permitted during his reign."

74. Ibid p 255.

75. see ref 72. Ms Arch 1192 p. 165, f 94.

drain pus which was welcomed when it appeared. Dilatations, made through muscle in the direction of the fibres, must be large and adequate enough for a proper inspection, with the finger or sound. Fomentations may be used to promote tumefaction. Instruments are to be used to extract retained musket balls, Pincers with curved tongs or straight ends, or other tools for extracting impacted bullets or foreign bodies in bone. (Torbello). These instruments are introduced through the incisions, slowly and in a rotatory manner.

Grima shows a wide knowledge of the complications of wounds. In a lengthy discussion he describes erysipelas ("a disease of Lymphatics"), gangrene, toxæmic states, ileus which seems to have been frequent in such advanced toxic conditions, and abdominal abscess (also "in the peritoneal sac, beneath the diaphragm"), "metastatic" abscess formation, meningism, liver abscesses, empyæmia and lung abscess, "convulsive states" (? tetanus), various intestinal complications, icterus, marasmus and the greatly feared gangrene ("not one in a hundred will heal"). Fistulae are a sign of incomplete resolution, and may indicate that a foreign body is still retained, or that pieces of bone are about to be expelled (osteomyelitis).

In the Second part of his treatise Grima discusses the lesions of different parts of the body. He starts with

skull fractures and lesions, and talks copiously in favour of trephination, which it seems he not infrequently performed both when in Cassel and in Malta. When he describes abdominal lesions he goes as far as to recommend nephrotomy for extraction of musket balls retained inside the kidney (as for stone operation). Pelvic wounds, he regarded as particularly dangerous, and he has known stone formation to occur as a result of musket balls entering the bladder and there retained. Injuries to the genitals risk the spread of inflammation to other parts of the abdomen. When the extremities are injured, one may have to resort to amputation; Here Grima picks a bone of contention with Sig. Bilgnere (Surgeon to the Army of Fredrick III)! who criticised his colleagues for amputating too readily. He ends by describing the procedure in the four types of operations, amputation of the arm, at the elbow, the thigh, and at the leg. All the necessary instruments must be ready at hand, besides the aid of an assistant, a tourniquet, and a second tie to guide the line of incision. Complications of amputation will ensue if proper technique is not observed.

Arrest of hæmorrhage is also an important consideration; Grima advises the use of dry thread and manual compression, or possibly the use of agaric. Severe hæmorrhage may, in itself, slow down the bleeding. Tourniquets may be required, or (although more painful)

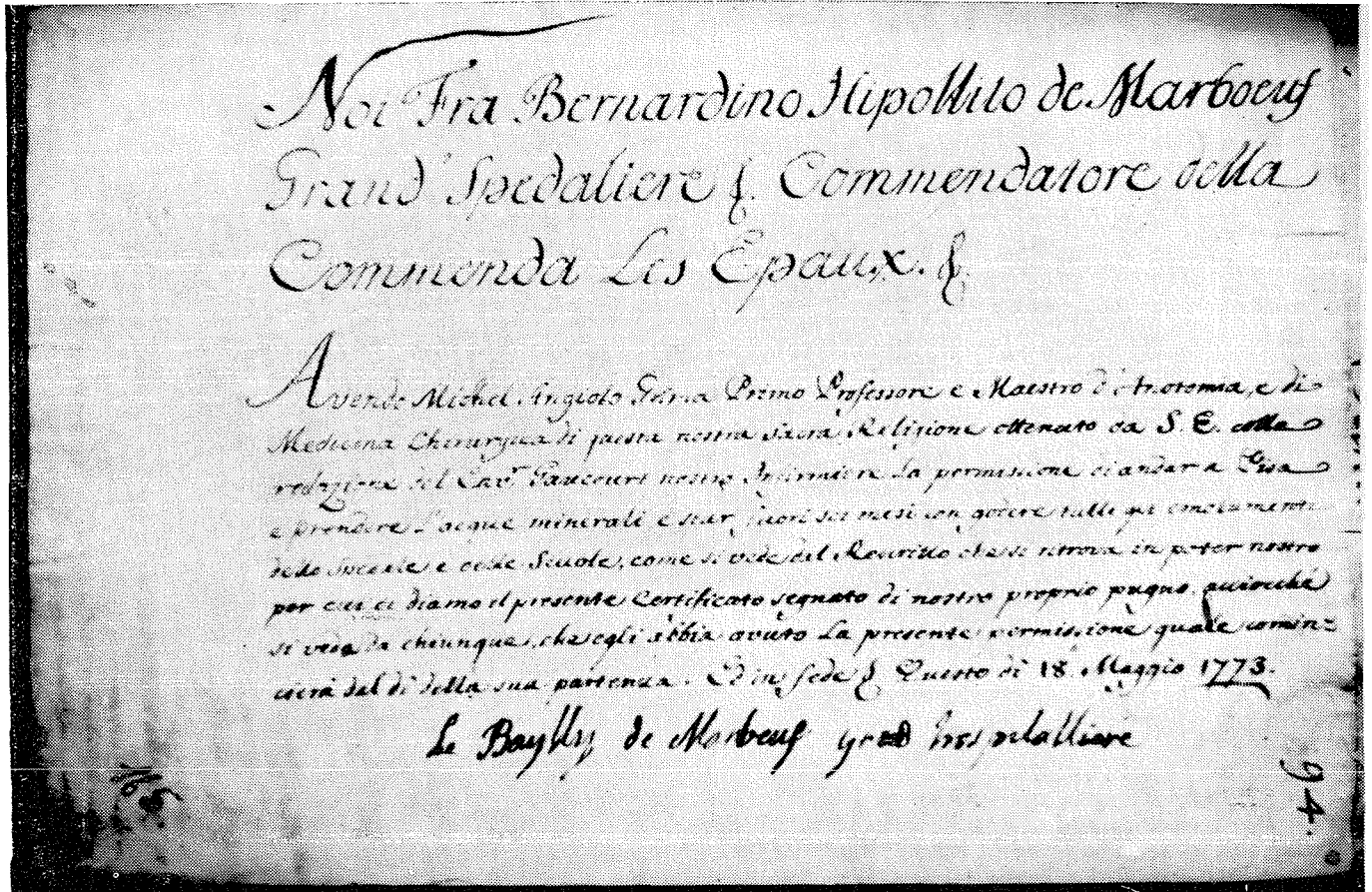


Fig. 13. Permission to go abroad to Pisa on paid sick-leave and drink the "mineral-water".

76. Ms Arch 1192 f.237

77. R.M.L. Ms 1146(2) p 350
11th March 1775:

"Today, the highly esteemed Michel'Angiolo Grima directed the opening ceremony for the commencement of studies for young barber surgeons founded by Bali Fra Clemente Ressegnier, in the distinguished presence of several knights

(and "Bali's"). The seat of honour was given to the Chief Infermiere (a Knight), seconded by the Protomedico, and to the right of the Infermiere the founder. The ceremony, held in Italian, received wide applause.

78. Arch 1192 p. 237

Arch 653 ff 52, 354 (quoted by J Cassar Pullicino).

79. Arch 1192 p 420 (ff 185-188).

Fiat 7th August 1776, 27th July 1776.

a curved needle and waxed thread. A small feather over the vessel, beneath the knot will lessen the pain. He also discusses the care necessary in the transport of wounded, when the hospital is evacuated. Phlebotomy is only advised in selected cases, and it seems that Grima never showed much enthusiasm for this procedure. Ointments are recommended to promote suppuration, which Grima often finds irritating and only make the suffering worse. The wound must be carefully nursed (bandaging, he adds, is the most important and neglected aspect of Traumatic Surgery), kept clean, and warm.

The final part of the book describes actual cases. They are a collection of 25 cases, the majority of which were studied at the Hospital of the Temple, in Cassel. Grima points out that his patients had to travel a long distance to get to the hospital, and that the journey adversely affected the prognosis. The cut skulls (mostly prepared by students under the direction of Grima) are shown, and there usually is a short explanation of the cause of death. Unable to recognise fully the gravity of meningeal infection, Grima attributes many deaths to "inflammation of the lungs".

Further Troubles

In May 1773 Grima thought it necessary to go abroad

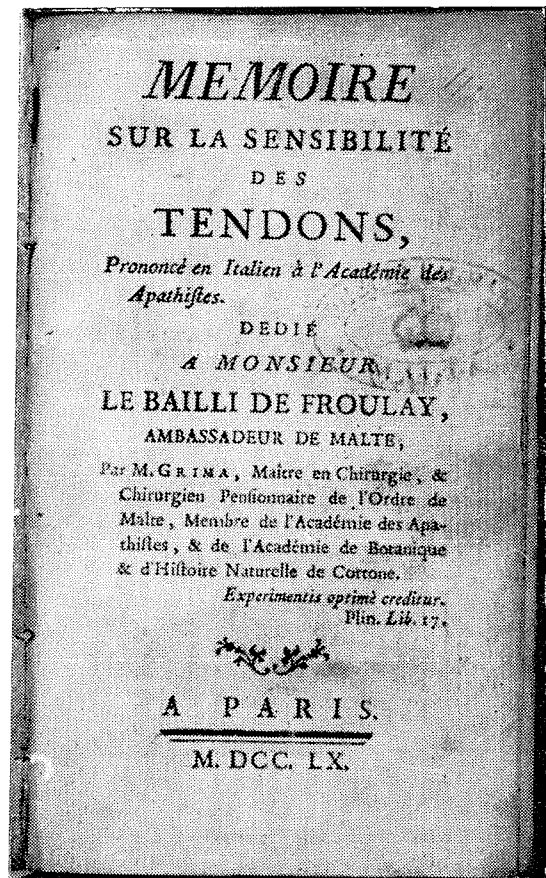


Fig. 15. Frontispiece to Grima's booklet on the sensitivity of tendons R.M.L. B1/2/32.

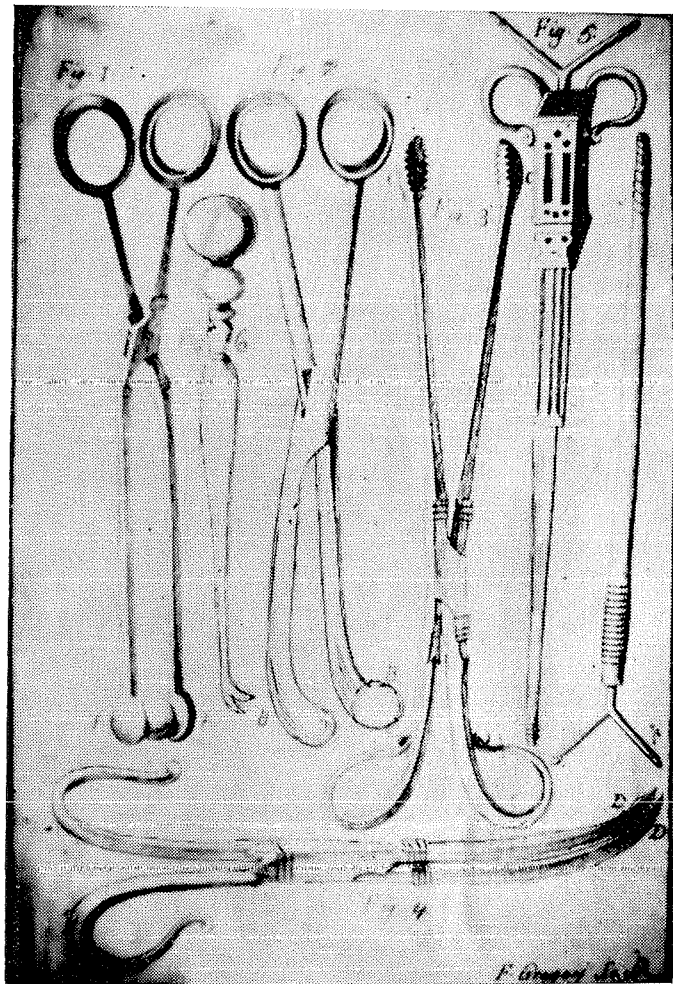


Fig. 14. (Della medicina traumatica)

- fig. 1. Triapalla in forme di pinzette dritte
- fig. 2. Tirapalla, prese... AA rotunde, BB curve.
- fig. 3. Tirapalla, DD prese-quisa di becco curva.
- fig. 4. Tirapalla foggia di Tira turaccioli, chiamato: "Torbello con annale" e senza di essa.
- fig. 5. Tirapalla simile ad un piede d'uccello, detto Arno Uncino.

These instruments were employed to extract musket balls (and foreign material) from wounds.

to recover from what probably was Tuberculosis. He describes that he had "chest rheumatism" with tertiary and quaternary fever, and suppurating glands in his axilla.⁷² He was granted paid leave by the Grand Master for six months.⁷⁵ He left on the 15th of June but returned on the 24th November. In the meantime the despised Locano once more succeeded in taking his place, and Grima was even deprived of the sick leave that was due to him.⁷⁶ It seems however that Grima persuaded Bali Fr Clement Rossegner to donate a sum of money towards the creation of an Institute of Studies, headed by Grima. This was inaugurated in a ceremony on the 11th March 1775.⁷⁷ G.M. Ximenes who as we have seen did not seem to favour Grima, died in October of the same year, and the new Head of the Order, De Rohan now seemed more sympathetic towards Grima's wishes. In fact, Grima was able to vindicate his hatred for Locano, by successfully pleading to the G.M. to dismiss Locano from the post of lecturer of Anatomy and Surgery (set up by Cottoner), and put Grima in his stead.⁷⁸

Grima asked the Grand Master for the pay that should have been due to him while ill abroad. He rightly pointed out that he had restored the Anatomy and Surgery School to its present status, and had succeeded in attracting students from many foreign countries. Several of his pupils went to take up further studies abroad, where they grew famous in their own right. He also added that two Institutions to teach Anatomy and Surgery were superfluous. By 1776 the University was firmly reestablished, and slowly these turbulent affairs quietened down.⁷⁹

Locano, who graduated at Montpellier on the 13th September 1749 and spent 2½ years practising there, was

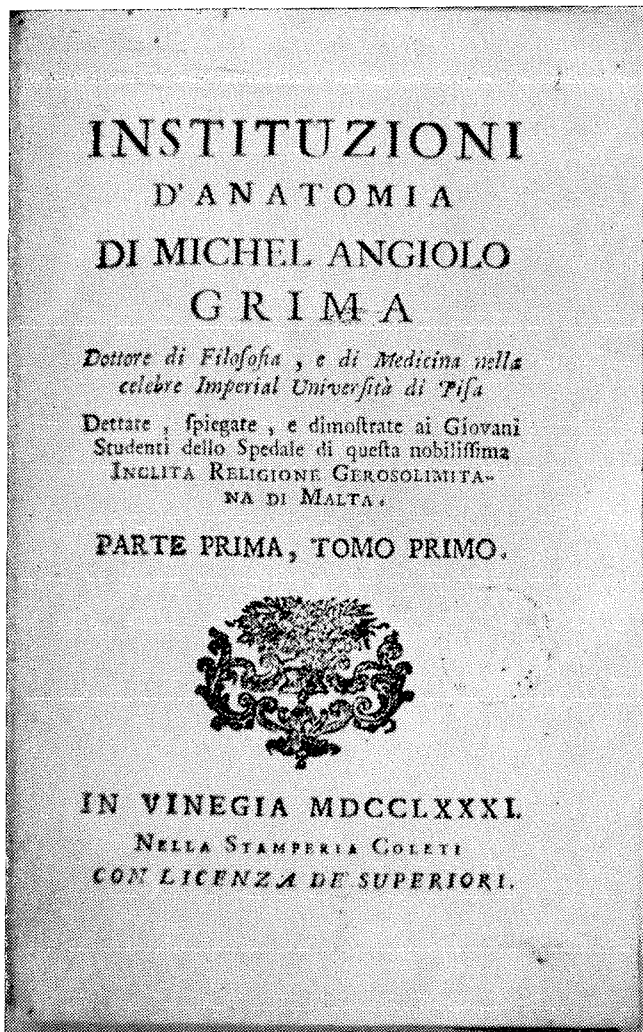


Fig. 16. Part I "Instituzioni D'Anatomia".

also busy adding publications to his name, when in 1774 he published anatomical studies of the muscular and nervous system of animals, during his short period as teacher of Anatomy. He was to receive an even more severe blow when, in 1776, Lorenzo was appointed Principal Physician, since "his services to the Order were older, more numerous and more important than those of Locano". In addition, the commission doubted the integrity of the initial decree stating Locano was senior to They, and commented on the underhand manner in which he tried to surpass his colleagues.⁸⁰

In 1776 Michele Grillet, a surgical colleague of Grima and one of the teachers of the School disputed Grima's seniority. He was, in fact, correct, for in 1744 — when Grima had hardly started his apprenticeship — he was already employed for some time at the hospital, and had hoped to succeed his father as Lithotomist at the hospital. Grima, on his return from Paris, was appointed Chief Surgeon without regard to the seniority of other surgeons already employed at the Hospital. Still, the Grand Master up held the Official View that Grima was the Senior Surgeon.⁸¹

In September 1777 Grima once more felt confident enough to ask the Grand Master for the provisions of food due to him. This was the "rotolo of meat, quartuccio di vino and loaf of bread" that his predecessor Henin had also demanded over thirty years earlier. These emoluments, Grima thought were well deserved, in view of the danger of his work as a dissector. He added that he was not only dissecting for teaching purposes, but

also performed Medico-legal work, and had carried out surgical operations the like of which had never previously been seen in Malta. These claims were granted.⁸² The teaching "ward-rounds" that took place at the Infirmary in those days have been described in the words of an eye-witness:

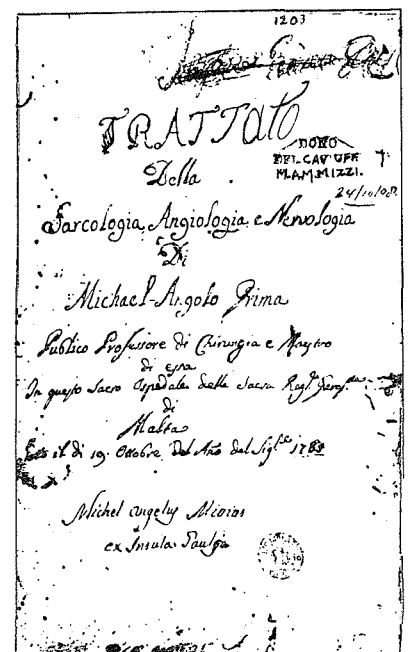
"The first and under-physician, with the surgeon and a few pupils, and one or two attendants, take the round or walk of the upper wards, but in this ward the physician does not attend. In the great hall there is a slate fixed on the closet-door at the side of the beds of the patients, on which the initial letters of their usual medicines, diet, etc... are written. On this slate, also, one of the pupils always marks the doctors orders, so that at his next visit, he may see his last prescription. When these gentlemen go their round, the patients are all required to be in their beds." (83)

Grima continued to teach Anatomy and Surgery. In 1781 he published his last book "Instituzioni D'Anatomia", of which he managed to print only the first part. This pocket-sized book contains in its introduction a valuable history of the Anatomy School of Malta. The book, is again, a reproduction of the lectures he used to give to the young students. Grima felt that they may be of use for revision purposes, and to spare the students dictation time. Too often, Grima remarked, students who found lectures wanting, took up private tuition in Anatomy. He hoped that in this textbook he had merged theory and practice. The book is dedicated to G.M. De Rohan, and contains 426 pages but is of a small size 7" x 5". At the beginning is a very extensive index. The book was printed in Venice.

The first part deals only with anatomy of bones. Two parts are recognised — 'dry' osteology, and 'fresh' osteology, each regionally subdivided. Few references are quoted, except for those at the Introduction.

The book may well have been based on the Anatomy notes which Gabriele Henin had left for his students (which Grima mentions in one of his letters). In introducing each part, Grima gives the Latin and Greek derivation of each term. Thus in describing the pelvis (p272) Grima gives the Greek word "pyelos" or "chain" of bones, adding that the Ancient Greeks (as Galen observed) found no name for these bones and called some of them the "innominate" bones. The anatomy, relations, and

Fig 17 Ms 1203, The hand-written front page of Part II of Grima's anatomy book, still preserved at the Royal Malta Library.



physiological considerations of these bones are included, besides a brief note on important age and sex differences, and on the best way to study the anatomy of these bones.

Grima never succeeded in publishing the second part of his anatomy book, dealing with soft tissues, muscle, blood vessels and the nervous system. The manuscript, however, is still preserved at the Royal Malta Library (Ms 1203). It is 260 pages long, 7½" x 12" large and hand written — most probably dictated by Grima to a student of his who signs on the 19th October 1763 as MichelAngiolo Mizzi (in Latin).

The work is carefully paragraphed, indexed and separated into smaller topics; thus, one finds 18 chapters each dealing with the regional anatomy of the muscles of the body. Grima's intention to merge practical considerations with theoretical ones is evident here, when he speaks of "groups" of muscles rather than their individual action. His interest towards the historical aspects of anatomy are persistent throughout the book, especially when dealing with the origin of anatomical terms. Such historical notes are undoubtedly of value and often at variance (and probably more correct) with interpretations given in modern anatomy textbooks. For instance, explaining the origin of the descriptive term "muscolo delle catene" (anterior peroneal muscle) Grima quotes Spigelius who taught that patients who had this muscle severed were obliged to walk with the use of a chain. (para. 1019,p112).

The Final Years

The last years of the eighteenth century saw the decline of the Order in Malta. The Infirmary was in a sorry state when in 1786 Howard visited Malta and later published his pungent account:

"...they (the sick) were served by the most dirty-ragged, unfeeling and unhuman persons I ever saw. I found eight or nine of them highly entertained with a dying patient. The Governor told me that they had only 22 servants and that many of them were debtors or criminals, who fled thither for refuge".

Possibly Howard was unjustly derogatory, or (as Bedford suggests the Grand Hospitallier (always, by virtue of his ancient precedence a French knight) was at the time inefficient. The cost of running the hospital was at the time around £6000 a year.⁸³

Grima's career had now come to its end. In 1794 he was "superannuated," after having served the Hospital, the University and Malta for 32 years." In 1784 an

additional chair of dissection had been created, when the Prior of Catalonia, Bali Fra Nicolo Abri-Descallar donated 2500 scudi towards the foundation. The young Giovanni Andriotti was sent (like Grima) to Florence to study anatomy. Grima's immediate successor was Aurielio Badat, a colleague of his.

On the 25th August of 1798, in the same year Napoleon took command of Malta, Michel'Angiolo Grima died at the age of 67. Significantly this year also marked the end of the Grand Hospitalliers' rule over Malta. Both had contributed much to Malta's fame in the medical care of the ill.

Grima is buried in the church of the Franciscan Minor Observants at Valletta. Yet it is sad to note that no remembrance is made of this great man — who so effectively taught and loved medicine in Malta — in our Medical School.



Fig. 18. Michel'Angiolo Grima:

80. Ms Arch 1192 p.326, 329-332.

81. Ms Arch 1192 ff 185-188

82. Ms Arch 1193 (Tomo XII, 1777-1781) f.118.

83. Howard's Lazzaretto's in Europe 1789, p.58 (Malta)

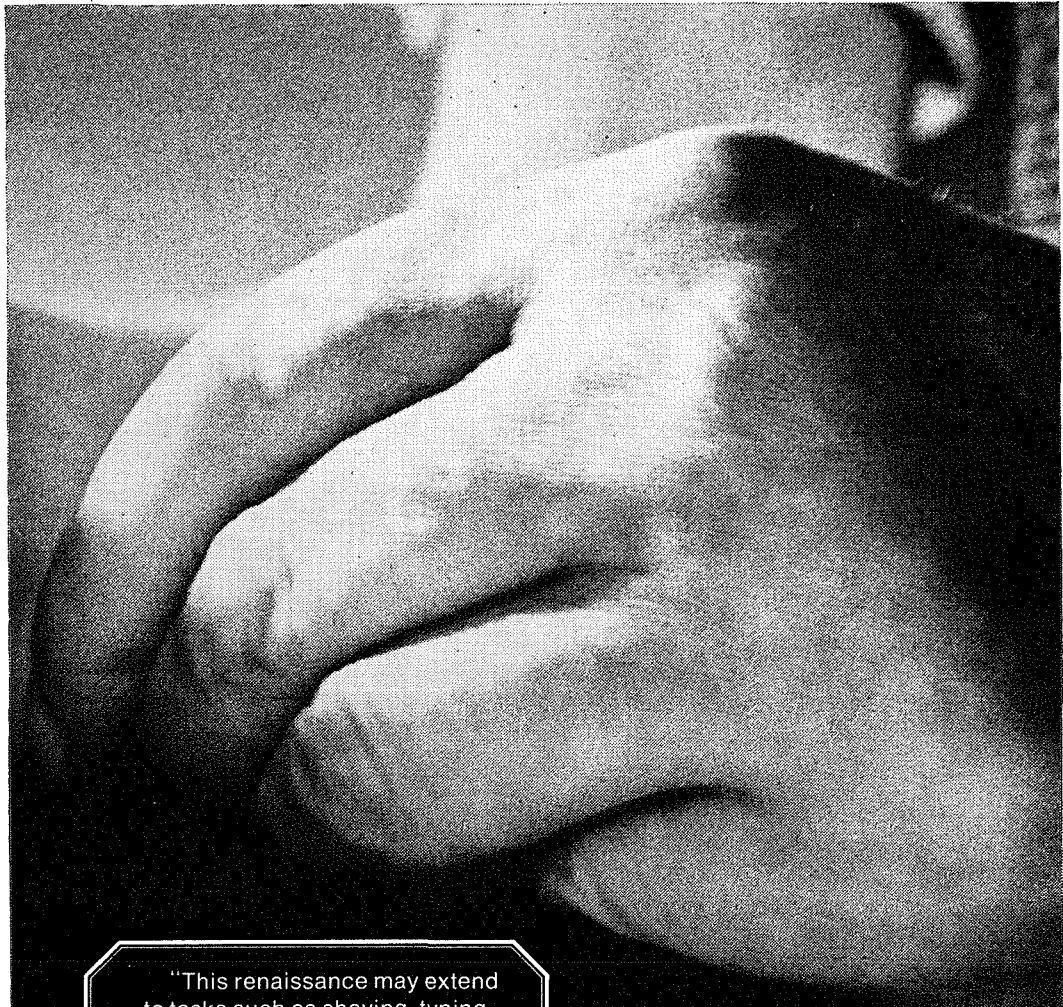
84. Malta and the Knight Hospitalliers Rev W.K.R. Bedford London, Sealey & Co 1903 Malta Watson & Co.

ACKNOWLEDGEMENT: The author wishes to thank Mr. Jos. Galea for his valuable help. Permission to publish most of these photographs was kindly given by the Librarian of the Royal Malta Library, Mr. Depasquale. Professor Pace provided the photographs for figs 1, 11 and 17.



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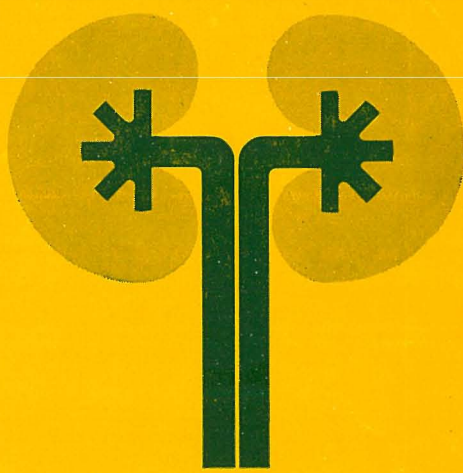
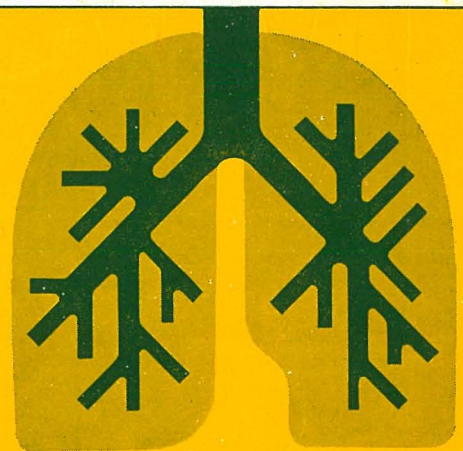
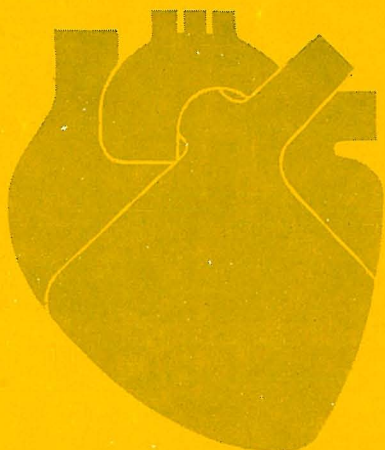
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