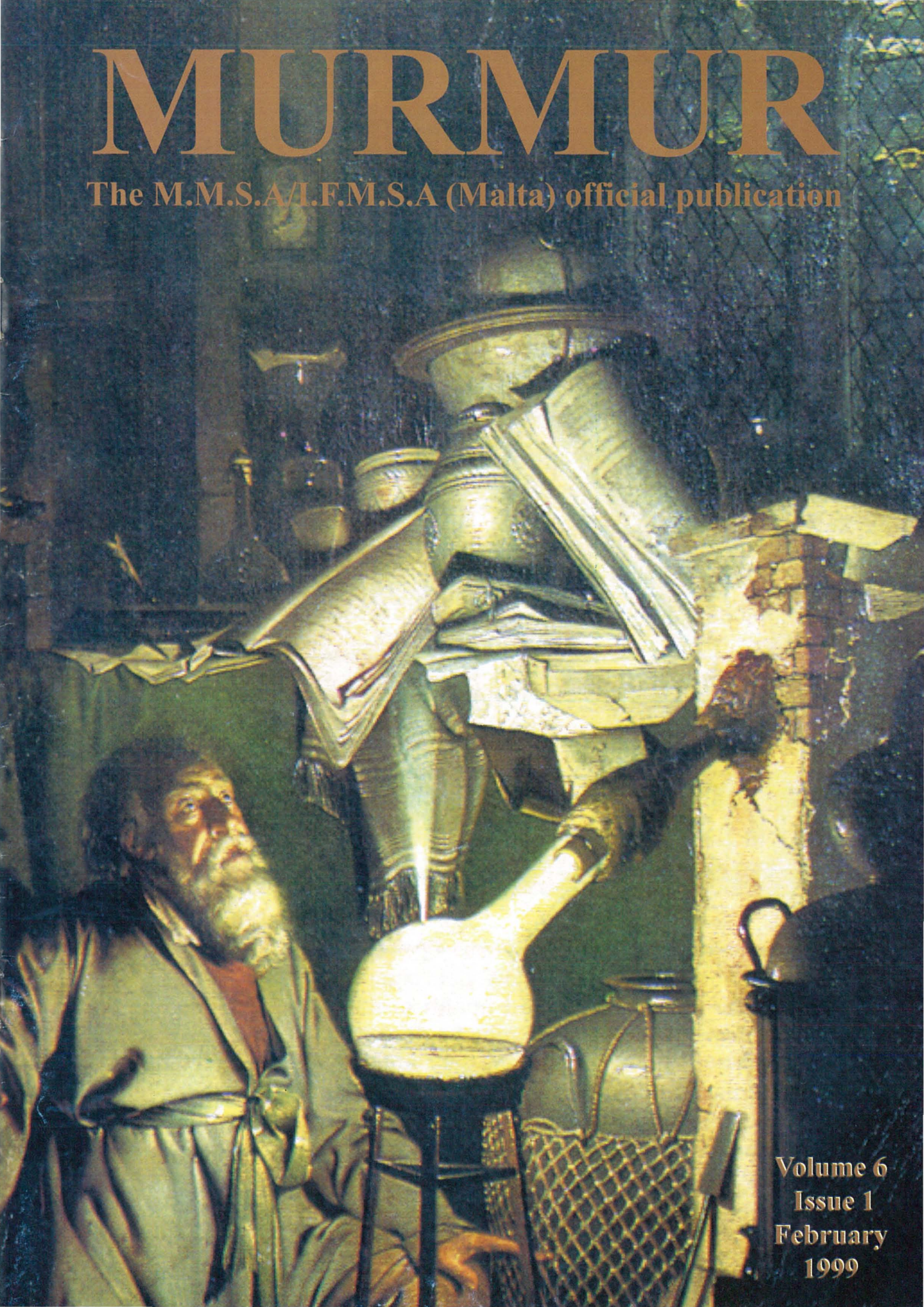
MURMUR

The M.M.S.A/I.F.M.S.A (Malta) official publication



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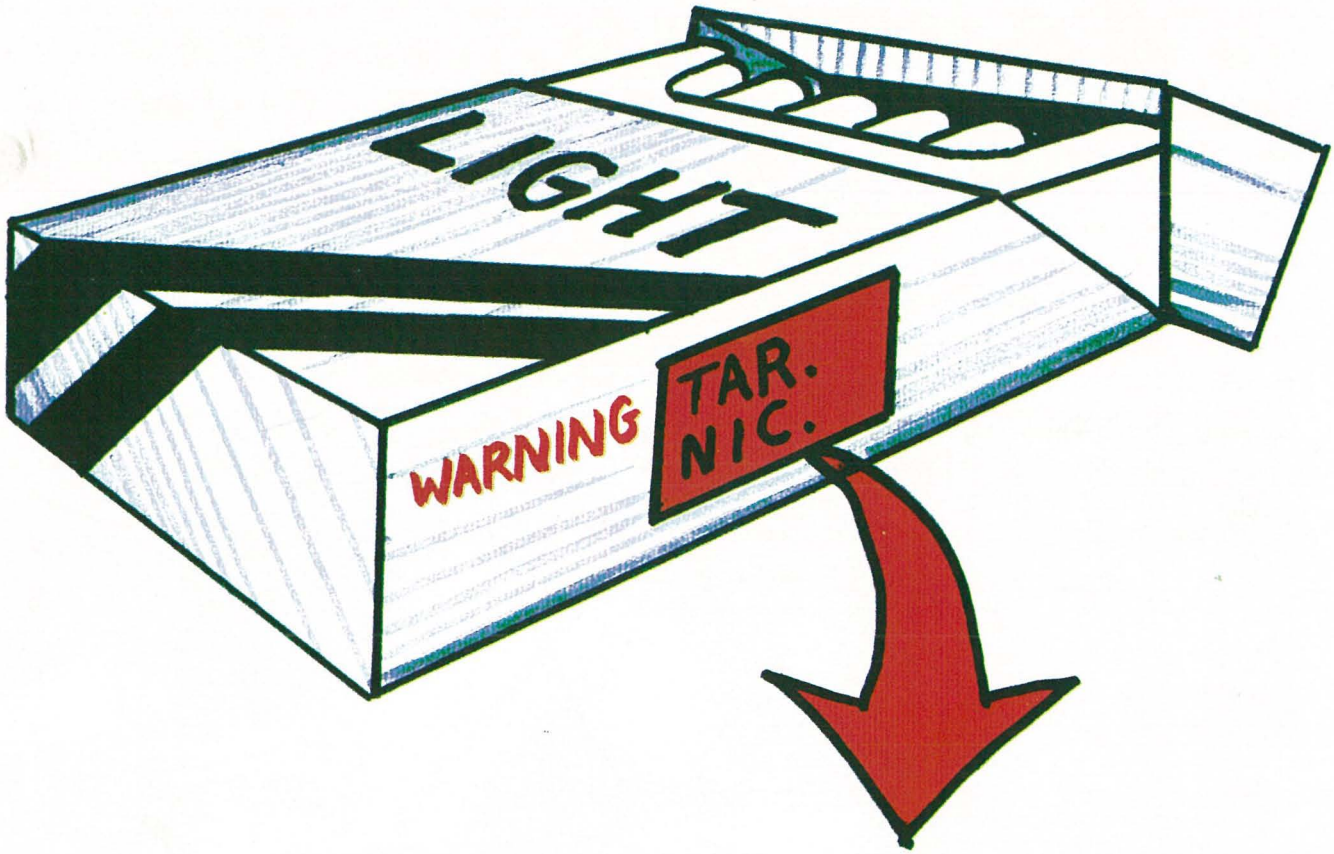

LOW TAR & NICOTINE RATINGS ARE STILL HAZARDOUS TO HEALTH ...

QUIT SMOKING NOW

Smokers should not think that low-yield cigarettes have solved the smoking and health problem. Although low-yield cigarettes may be seen to be less risky than high-yield ones, they are not a good alternative to quitting altogether. Smokers who are unable or unwilling to quit smoking, turn to low-yield cigarettes hoping to cut down on tar and nicotine ratings. This can be misleading.

Health Promotion Department

Editorial

By Stephen Sciberras, the Editor.

So here is another issue of MURMUR, the magazine by Medical Students for Medical Students. As member of the Editorial Board, I sincerely hope that all of you will find something of interest in these few pages.

We have done our utmost to present to you something worth reading. To catch your attention, we tried to vary the contents as much as possible, with articles ranging from leeches to intensive care practice to interviews with our lecturers. Even the basic layout of the MURMUR has been changed, hopefully for the better. We hope that this issue will remain interesting to you not only now, but also in the future.

Speaking about the future, we have already planned some interesting features for MURMUR. There will be an online version of the publication, available at the MMSA homepage. Furthermore, we hope to be able to bring to you an issue every three months. New features will be appearing in the next issues of MURMUR, features we hope you will appreciate.

This issue was made in a hurry: just ask the other members of the Publication Team how many time we spent on the phone at unbelievable hours! And yet, we sincerely hope that you enjoy reading this publication as much as we have enjoyed ourselves doing it.

The Editorial Board would like to thank the sponsors of this publication, and the Sponsorship Team of the MMSA; the designers Matthew Mifsud and Brian Cremona - chrome communications - *for their patience and their services; Mr. L. Schembri, from Papier Plus, for all the trouble he took with us; Philip Camilleri and all those who contributed with their articles. Last, but not least, the Editorial Board would like to thank the members of the Publication Team for their magnificent job. We would like to dedicate this issue to all those who believed in us. Thank you.*

Contents:

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The Publication Team

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Interview with Prof. William Bannister

BY ANDREW AGIUS

We have decided to revive the past practice of interviewing one of our lecturers with an interview with Prof. W. H. Bannister, a physiology lecturer. We are sure that the impression of such a person is to last with the career of every medical doctor taught by him. But do we really know him as a person? Andrew Agius helps us to answer this question.

Tell us about your education (primary school, secondary school, 6th form, university) – where and what exactly did you study?

In those days, there was no Sixth form, we used to go to lyceum – it was a very good school with dedicated teachers. Then, I went to the University of Malta from 1951 to 1958, I worked for a year with Professor Ganado, then I went to Oxford University from 1959 to 1964.

How was education in those days?

Medical education was pretty much the same; it used to depend on the teachers and the teachers were good. We used to go to ward rounds, out-patients, operating theatres. You had to listen and observe. They used to let us examine patients and we used to learn a lot from the wards, not so much from the lectures.

You have to be prepared to learn from anyone, from nurses, from doctors, from anybody. If you're prepared to learn it's not difficult.

Any special assignment that you remember that you want to tell us about?

I think assignments are quite a new invention and were not so popular in those days. I had won a prize in Therapeutics in third year of medicine where we had to write a very long essay.

Did you have any hobbies or take part in any sports?

Medicine had become my hobby. As regards sports, I must say it did not used to interest me particularly and I did not used to take part in any.

What other things did students/ teachers used to do?

We used to have physiology practicals in our pre-clinical years. That was the lab where we used to have our practicals. It used to be in Valletta.

What did the practical used to involve?

We used to be taught to examine urine, blood etc. Now they don't believe in it much but in those days, we had to produce a logbook which had to be signed. I think in the 1st years you should be gradually introduced to medicine and it will serve you as useful practical work.

After your education, how did your career start?

Before there were a lot of "big" people in medicine such as Professor Ganado, Professor Grech, Professor Griffiths, Professor Zammit Maempel. They had an image, which unfortunately does not exist anymore. Professor Ganado had started me off since he had a degree in physiology. Besides being a super clinician and a neurologist, he was also the professor of physiology and his work neurophysiology began to interest me.

Was it easy starting work as a doctor?

I only worked at St Luke's and it was fairly simple. You have to be prepared to learn from anyone, from nurses, from doctors, from anybody. If you're prepared to learn it's not difficult.

Did you have any opportunities to work abroad, or other opportunities?

I did my degree in physiology in 2 years. Then when I came to do my B.Phil, I was working in hospital and was very busy. I never really had a chance to do anything. I went to wards rounds once or twice,

I look up to teachers mainly. Reaching people as a teacher is not easy.

to MRCP seminars once or twice only . I used to teach, demonstrate and do research. I used to stay up till 11p.m. at the labs in Valletta. So I never really had time.

They were all a success. In Malta, if you're determined, you succeed.

Is there any person who you looked up to?

Once you're in Oxford and you have your personal tutor he will remain your tutor. Mine was Mr. O'Brian.

He was absolutely unique. He didn't teach you anything, he just taught you to think. You had to write an essay a week and he would end up tearing it up for you and we used to quarrel a lot.

One Maltese person I look up to is Professor Frank Vella who is very distinguished in biochemical education. He went to Canada. He was and still is in the national union of biochemistry and molecular biology and he is a first class teacher. I look up to teachers mainly. Reaching people as a teacher is not easy.

Do you remember any of your classmates?

There was Alex Warrington who is a first class surgeon, unfortunately we lost him because he had to go to UK. Professor Lesley Pace became a Professor of Anatomy. They were all a success. In Malta, if you're determined, you succeed.

How have teaching methods changed over the years?

I never wanted to change my teaching methods. I always used to use just the blackboard. It would be very easy for me to do slides and teach you that way. It has its merits but I never liked it. I try to learn the subject and teach you from what I know. But you never stop learning.

And how have the students changed?

The students have always been the same. For some reason, the most intelligent people take up medicine and these usually succeed. However there would be one or two who degenerate.

Do you have any plans for the future?

I don't really have any plans. When I was kicked out for 9 years I learnt computers because I used to know absolutely nothing. I can do many things in the future. The most important thing is to keep your brain active. If you keep it working it lasts longer.

I am 63 and I haven't changed – what I could do 30 years ago I can today.

It seems your work is based on research mainly. Could you tell us the advantages and disadvantages of such a decision? Local opportunities for research?

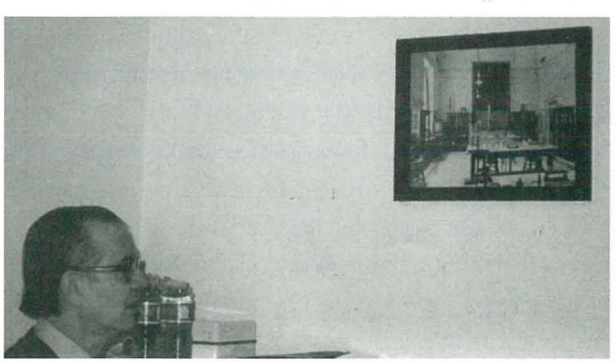
Of course we don't work on patients. It's very difficult to organize patient research in Malta. Professor Ganado did a lot of work as regards brucellosis and once we found a case of bacteraemia without fever which was strange and finally we found the brucella in the lymph node and we had done a paper in the BMJ. When I went abroad I took a lot of histories with me to study the blood cells of the patients. And they almost said I stole the histories. People got jealous. It's hard to organize patient research but you shouldn't be discouraged, it can be done. You do research for your personal pride. More research should be done. The problem is a lot of money is needed for such work. As regards local opportunities, all patients are a source for research. Dr. Azzopardi, one of my ex-students, has a large database of patients. For example, in Malta there is a higher incidence of breast cancer than in the western world. I mean this could be a very interesting area to do research upon.

The most important thing is to keep your brain active. If you keep it working it lasts longer.

How would you describe yourself (as a person)?

I never described myself. I get offended when people call me doctor, scientist or physiologist. I don't believe in describing myself. I'm not saying I'm a unique entity, I'm just myself.

The Publication Team is grateful to Prof. W. H. Bannister for his patience and co-operation in letting us interview him, and hope that this will help the medical students appreciate better the work done by our lecturers in delivering their knowledge to us.



PROF. WILLIAM BANNISTER RECOLLECTING HIS OLD DAYS

Albumin in the Emergency Setting

BY STEPHEN SCIBERRAS

Would you consider administering a drug to a critically ill patient that might increase his chances of dying? Especially when this drug is very expensive, and has to be extracted from human blood? Hopefully not. But deciding which drugs are indeed miraculous, and which are harmful may not prove to be an easy thing. Stephen Sciberras illustrates this point in the following article.

Recently, an article appearing in the BMJ of July 1998 has ignited a heated discussion between doctors about the use of albumin. Albumin, derived from human blood, is used as a plasma expander in cases of hypovolaemia, so that, by its oncotic pressure, it draws tissue fluid into the effective circulation.

Plasma Volume Expansion

Several plasma expanders are available on the market. Broadly, they can be classified as natural, and synthetic. By using this classification, albumin is a natural plasma expander, since it is obtained by separation techniques applied to human blood. On the other hand, gelatin, for example, is a synthetic plasma expander. Furthermore, plasma expanders can further be differentiated into colloids and crystalloids. Albumin and gelatin are both medium-weight colloids, whilst crystalloid media include hypertonic saline and Ringer's lactate.

The use of plasma expanders is a direct extension of the application of Starling's Law, which simply states that the net pressure of filtration may be found by:

net filtration = (HPC - HPT) + (OPC - OPT)

where HP is the hydrostatic pressure, OP is the oncotic pressure, C is the intraluminar compartment, and T is the tissue fluid compartment.

In fact, Starling himself postulated that albumin could be used in restoring plasma volume. Thus, to increase the volume of the effective circulation, one may:

- Directly infuse fluids to replace lost fluid.
- Decrease the intraluminar hydrostatic pressure
- Increase the tissue hydrostatic pressure
- Decrease the tissue oncotic pressure
- Increase the intraluminar oncotic pressure

Plasma expanders act by the first and the last of the above mentioned mechanisms. For instance, 1g of albumin draws with it 18g of water!

Note that in recent years the assumed reabsorption of fluid at the venous end of capillaries has been challenged. Modern evidence suggests that the absorption of tissue fluid is minimal through the venous ends, and that it mainly occurs in the lymphatics. The oncotic pressure thus serves only to restrain tissue fluid filtration, rather than increase filtration. In some rare circumstances for example, in hypovolaemic shock there is a transient reabsorption of fluid, but this lasts for only a few minutes and it amounts to an "internal transfusion" of about 500 ml of fluid over 15 minutes.

Colloids and Crystalloids

As stated above, there are two types of media used to increase the effective circulating volume, i.e. the colloids and the crystalloids. The former exert mainly a colloid pressure in the intraluminar compartment to retain fluid, whilst crystalloids act mainly by increasing the osmotic pressure in the intraluminar compartment. Colloids are more expensive than crystalloids, but since colloids persist longer in the circulatory system, their effect on the circulating volume lasts much longer than that of crystalloids. Furthermore, higher volumes of crystalloids are required to achieve the same effects as with colloids, so that circulatory overload is more probable with crystalloids than with colloids. This is unwanted in patients with renal failure, in children and in patients with compromised oxygenation.

Colloids themselves differ in their pharmacokinetic and pharmacodynamic properties. Their effect is a function of their molecular weight, since low and medium weight colloids will have a shorter half-life than higher weight colloids. Side effects vary as well. Hetastarch reduces platelet aggregation, prolongs bleeding time, and decreases the levels of circulating factor VIII, besides causing acute allergic reactions. Gelatin-based plasma substitutes (such as Gelofusine) can cause anaphylactic reactions and impair primary haemostasis and thrombin generation. The defect in primary haemostasis seems to be related to a gelatin-

induced reduction in von Willebrand factor activity, whereas the decreased thrombin generation is due to dilution. Furthermore, the bovine origin of gelatin sources may worry some people. Dextran infusion may also lower plasma factor VIII, and it prolongs bleeding time by decreasing platelet adhesiveness and by increasing fibrinolysis. In fact, studies have shown that Dextran is clearly associated with a rise in mortality, and is rarely used nowadays.

The main argument for the use of albumin is that in some cases of hypovolaemia, especially those resulting from shock, the serum levels of albumin are low. Furthermore, the serum albumin concentration in critically ill patients seems to be inversely related to mortality. GOLDWASSER *et al.* have estimated that for the critically ill patient, each 2.5 g/l of serum albumin lost signifies a 24%-56% risk of mortality. Thus, it would be natural to infuse such patients with albumin, even though this relationship may not be a cause and effect type.

Volume increase using albumin has other advantages. Being natural, it is the preferred option, especially when one considers the side effects of the synthetic colloids and crystalloids. Notwithstanding this, published guidance from the UK transfusion services states that:

"There is no evidence to support the use of albumin rather than crystalloid in acute volume resuscitation; albumin solutions are more likely to cause circulatory overload than are crystalloids; 20% albumin can produce severe acute circulatory overload; 5% albumin should be used with care in patients at risk of sodium retention."

THE STUDY

To assess the use of albumin in the intensive care setting, the Cochrane Injuries Group Albumin Reviewers sought to conduct a meta-analysis on a number of randomised controlled trials of administration of human albumin in critically ill patients with hypovolaemia from trauma or surgery, with burns, or with hypoalbuminaemia. (A meta-analysis is the collection of data from other trials. The trials obviously have to be similar in many respects, which is sometimes difficult to do. Advantages of a meta-analysis over a clinical trial are: there is no need for the enrollment of new patients; and a large number of patients can be assessed by collecting a number of trials. On the other hand, a meta-analysis depends on the validity of the pre-existing data, and there is the problem of matching correctly the criteria of all trials reviewed.)

In all, 30 randomised controlled trials were reviewed. This meant that 1419 randomised patients were assessed. The main outcome measured used was the mortality found in each trial. All causes of deaths were included in the data.

Before passing on to the results, one should first think about the study itself. The use of mortality as the outcome measure has several significances. It is easy to measure, with little chance of biasing. Furthermore, mortality is the most important clinical outcome in the

The following data have been reported from an audit carried out in early 1997, by Shwe and Bhavnani, at the Royal Albert Edward Infirmary:

- It was shown that showed that albumin is used rather non-specifically, especially when one notes that its use costs the NHS about $12 million a year.
- 4.5% human albumin solution was used in patients with low serum concentrations of albumin in a variety of clinical conditions (including an occasional request for only 500 ml)
- 20% human albumin solution was used mainly in patients with chronic liver disease.
- There is also a considerable variation in the national indications for the administration of albumin, with a range of indications starting from 2 and going up to 12.
- With such data available, one will not be surprised to know that the amount of albumin used per 1000 population also varied widely (109-810 g a year).
- There is an ineffective use of human albumin solution as nutritional supplementation.
- The main contraindications are:
  i. volume replacement if blood loss is less than 30% of total blood volume
  ii. for early treatment (less than 48 hours) of burns and thermal injuries
  iii. for albumin replacement in chronic protein loss as a result of enteropathy, cirrhosis, and nephrosis
  iv. in low volume paracentesis.

emergency setting. By examining death from all causes in critically ill patients, many of whom have multiorgan failure, the authors have further reduced another source of bias. Statistical methods showed that, if there were publication bias in the included trials, then it was insignificant. However, the authors themselves state that there is a probability that, in some of the trials, more severely ill patients were preferentially allocated to albumin treated groups, due to inadequate allocation concealment. Yet, the results were almost identical when these trials where not included in the review.

The review showed that there is a higher incidence of mortality for patients treated with albumin than for patients in the comparison group. This is shown below:

Situation Relative	Risk higher than in Comparison Group
Hypovolaemia	1.46%
Burns	2.40%
Hypoalbuminaemia	1.69%
Overall	6%

Moreover, the review concluded that there was no significant improvement of patients who were treated with albumin as compared to the control groups.

The authors of the review believe that because this review was based on relatively small trials in which there were only a small number of deaths the results must be interpreted with caution. Nevertheless, they also state that there is strong evidence that the practice of administering albumin to critically ill patients should be reviewed more thoroughly, possibly by a properly concealed and otherwise rigorously conducted randomised controlled trial with mortality as the end point. Until such data become available, there is also a case for a review of the licensed indications for albumin use.

Pathophysiological Reasons: Why Albumin may be Harmful

For a study to be complete, the results have to be interpreted from the pathophysiological stand point. It is useless having the data, but not knowing what it actually means, for such data cannot be validated logically. Thus, some authors have put forward reasons that might explain the increased mortality of albumin in the critically ill patient.

The increased volume circulating in the blood vessels can cause cardiac decompensation, if volume replacement is too rapid. Indeed, in a study conducted by MOSS et al. in 1979 showed that that interstitial pulmonary oedema develops in baboons after albumin infusion in haemorrhagic shock.

As discussed above, albumin itself has some side effects. Thirdly, the antihaemostatic and platelet lowering properties of albumin may increase blood loss in postsurgical or trauma patients. Finally, albumin administration in the resuscitation of hypovolaemic shock may impair sodium and water excretion and worsen renal failure.

One important factor might be the increased capillary membrane permeability, which has been clearly shown to occur in the critically ill patient. Thus, albumin leaks out from the capillary compartment and into the tissue fluid. For instance, in disease states such as the nephrotic syndrome, there is new evidence to show that protein is lost not only from the renal circulation owing to greater permeability of the renal vessels, but also from the rest of the systemic circulation. This leakage of albumin may cause reduced tissue oxygenation, and also draw water with it into the interstitium, thus further exacerbating the condition of hypovolaemia. Albumin is not alone in leaking out of the capillary vessels; other low weight colloids such as gelatin suffer from the same problem.

Another theory has been proposed by Sitges-Serra, Head, Department of Surgery in the Hospital del Mar. Barcelona. In an article appearing in the BMJ of the 4th September 1998, he postulates that it is the glycosaminoglycan gel matrix that is the reason behind the albumin dilemma.

This gel matrix acts in regulating the albumin distribution in the interstitium, so that 60% of total body albumin is in the interstitium. Damage to this matrix, by aggressive fluid replacement or by sepsis, causes a redistribution of albumin, with more albumin passively filtrating out of the capillaries to take up more of the interstitial volume. Note that in this theory, the capillaries do not have an increased permeability. The increased volume of albumin causes oedema and an increased oncotic interstitial pressure.

The Criticisms Against the Study

Obviously, results like these tend to invite a lot of scepticism from the critics. Many authors query the validity of the review, since it was mainly a meta-analysis done with statistical methods. Others point out that even though albumin may have an associated increased

mortality in some patients, it may still be of beneficial use for selected patients.

PETROS *et al.*, all consultant paediatric intensivists in the ITC of the Great Ormond Street Hospital for Sick Children, reveal that there were not enough studies done on paediatric patients. Thus, they state that the use of albumin, at least from their standpoint will continue, since the theoretical risk is outweighed by the advantages of albumin over crystalloids. However, they would like to see a clinical trial for paediatric use of albumin in the emergency setting.

Some critics called for a more critical analysis of the data, since they state that several factors have been overlooked by the review group. These factors include the heterogeneity of the methods used in the different trials, such as the concentration of albumin used, age of patient, etc. In 5 trials, i.e. in 26% of all the patients reviewed, out of a total of 20 trials in which albumin was administered, the control were simply not treated by fluid replacement. According to some authors, some trials are too old to be reviewed, since newer resuscitation practices are being used nowadays. Other critics also emphasise that the review group was not learned in intensive care practice.

Even the fact that albumin does not yield any improvement in the condition of the patient has been questioned by some critics. For instance, Dr. Nadel, consultant in paediatric intensive care, and his colleagues point out that capillary leakage also occurs in meningococcal septicaemia. However, in the 410 children with meningococcal disease in the past six years, 4.5% albumin solution proved to be lifesaving. In fact, the mortality rate in such patients was less than that expected. This view is supported by Kaag, an anaesthetist, and Zoetmulder, a surgical oncologist. They argue that replacement with red cells and crystalloid or artificial colloids dilutes serum components, albumin among them. After tissue pools of albumin are depleted, infusion of albumin no longer prevents the slide into multiple organ failure and death. However, by administering albumin before this happens, and maintaining a serum albumin concentration above 35 g/l, together with careful electrolyte monitoring, patients can be freed from unnecessary complications.

Conclusion

The evidence against the practice of administering albumin seems to be compelling at first glance. However, it is also obvious that further research is needed. It may be that not all patients will benefit from albumin administration, but then the question that remains is: how to chose those carefully patients that will improve with albumin therapy. Still, one might end by recalling the

> ***"What would I want if I or someone I cared for was critically ill? If I survived, I would attempt to sue anyone who had given me an infusion of albumin; and I would not give my informed consent to take part in a randomised trial. I am not aware of any instance in which a systematic review of controlled trials suggesting that a form of care increases mortality has been followed by a controlled trial showing that the intervention concerned actually reduces mortality."***

words from Iain Chalmers, Director of the UK Cochrane ***And so, the debate continues...***

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Bloodsuckers in Medicine!!!

BY STEPHEN SCIBERRAS

Most of the time, we tend to look upon past practices with a pinch of salt, especially in Medicine. For instance, who would be prepared to believe that the liver is a big cauldron, or that the brain itself is useless? Which surgeons contest that their patients should be bled to relieve pain, swelling, or madness? And who would consider the leech as a therapeutic agent today?
But then, history repeats itself. And leeches are creeping their way into Medicinal use once again.

A DESCRIPTION OF A LEECH

Taxonomy places leeches in the class *Hirudinea* of the phylum *Annelida*. They depend on a host for nutrition, which is obtained in the form of blood. With its two muscular suckers, a leech attaches itself to the skin of a host, and then penetrates the skin using three jaws, each with 100 teeth, inside its anterior sucker. Blood is thence sucked by peristalsis. To ensure that the blood does not clot, and hence obstruct the flow, leeches secrete Hirudin, the most powerful anticoagulating agent known at present, into their saliva. The bite itself is painless, since the leech uses its own anaesthetic. Each leech will ingest nearly ten times its body weight in blood before falling off, engorged. Such a feed typically lasts for half an hour, with 20ml of blood being sucked into the leech. However, bleeding from the wound itself may result in a blood loss of ten times this amount, and may last up to ten hours.

There are 650 known species of leeches and the largest one ever discovered measures 18 inches.

From the 650 species of leeches that are known to Man, not all are bloodsuckers. About one fifth of leech species live in the sea where they feed on fish.

BLOOD LETTING

The technique of venous draining has its roots deeply entrenched in Ancient Egypt, the Aztec civilisation, Babylon, and in Hindu tradition, although the first written record of the practice is found in the Corpus Hippocraticum. Casual observance might have shown that local swellings were oedematous, and it might have been assumed that removing body liquid would reduce such swellings. Hence, blood letting might have gained some acceptance. Then, it was easy to extend such reasoning to more complicated matters like ascites, croup, and local pain. In fact, James the First of England nearly bled to death in attempts to cure his madness! Such a cure certainly managed to calm the patient, at least temporarily.

The therapeutic efficiency of blood letting was easily explained by the Father of Medicine himself. Hippocrates thought that an illness was an imbalance between the four basic substances of Health itself, i.e. blood, phlegm, black bile, and yellow bile. The theory meant that excess blood could cause certain disorders. Reducing this excess blood restored such an imbalance and hence, the patient would be cured. Even today, conditions like polycythaemia are treated by venesection, the modern, technical term for blood letting. The problem was that too many conditions were said to be cured by venesection, although clinical experience showed that the technique was more harmful than thought!

Contrary to popular belief, venesection involved both expertise and advanced equipment. Large veins were opened using either a lancet or a phleme. Smaller vessels required the use of other techniques, mainly leeches, slight nicking using a lancet, or the use of scarificators. Cupping glasses, applied to the site of blood letting, were used to collect the blood without messing the place. For those who might think such methods as comical, note the ingenuity of the physicians. Heat was applied to the cupping glass in order to rarify the air inside and hence produce a suctioning effect: this principle of suctioning is employed nowadays in the famous Vacutainers™! Blood letting equipment was on sale as late as the beginning of this century. Furthermore, the experience gained by bloodletting physicians is constantly being used today in the taking of blood samples. The following abstract from an article taken from The Encyclopaedia Perthensis (1816) 2° Edition, might well have been taken from a modern textbook:

The patient being properly seated, the next step is, by a proper bandage...,so to compress the vein..., as to prevent the blood from returning to the heart.

This pressure upon the veins, by inducing an accumulation of their contents, tends to bring them more evidently into view, and consequently renders it easier for the operator to effect a proper opening. The pressure, however, ought never be carried so far as to obstruct the circulation in the corresponding arteries, otherwise no discharge of blood can take place.

....While the blood is discharging, the member ought to be kept in exactly the same posture as it was when the lancet was first introduced: otherwise the orifice in the skin is apt to slip over the opening in the vein; a circumstance which always proves inconvenient, and sometimes produces much trouble, by the blood from the vein insinuating itself into the surrounding cellular substance.

...Throwing the muscles of the part into constant action, by giving the patient a cane or any other firm substance to turn frequently around in his hand when the operation is done in the arm, will often answer in producing a constant flow of blood from a vein when every other means has failed.

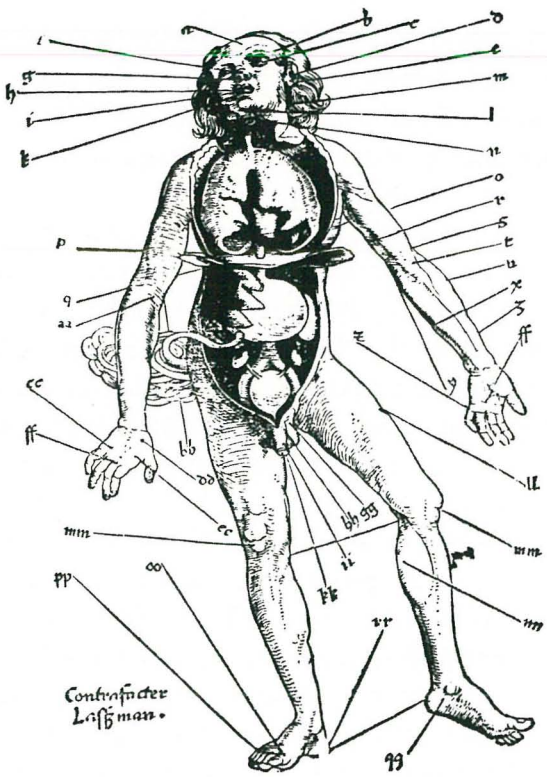
A quantity of blood proportionate to the nature of the disorder thus discharges, the pressure upon the superior part of the vein should be immediately removed:...all further loss of blood will in general stop immediately.

The art of venesection gradually faded away when it was turned into a science in the 19th century. Application of empirical studies, by clinical trials, showed the high mortality rates of the technique, and people would not let themselves be bled for no reason.

The leech has 32 brains - 31 more than a human and the first leech to be used in medicine was about 1000 B.C., probably in ancient India.

Leeches in Medicine - Before...

Hirudo medicinalis may have first entered the formulary in the second century BC. Leeches inflicted less pain than other invasive methods, and could be used for normally inaccessible parts of the body - for example, tonsils, haemorrhoids, and the cervix. A host of accessory devices enabled precise application in anatomically awkward areas; these included feather quills and the "leech glass," a hollow tube through which the leech would crawl to its target. Such advantages made leeches very popular in the 19th century - in France alone, more than 40 million leeches were used in 1833!



Woodcut of a dissected executed criminal, by Johannes Wechtlin (1490-1530). Illustrates the proper sites for venesection.

Obviously, there were drawbacks to the technique, but most of them regarded the leeches themselves, rather than their use. Obtaining leeches, from Central Europe and Asia, was one: soon they were being harvested, with people wading into infested waters and removing the attached leeches from feet and legs. Also, a leech may not draw blood, but may have to be coaxed into action by moistening and cooling the parts on which they were intended to fix, either with milk, cream or blood. Another problem was that patients usually bled more from the lesion produced by the leech than by the leech itself. This was easily resolved by local pressure, surgical excision and the application of cobwebs.

Leeches lost their hold with the decline of bloodletting. Few physicians recommended leeching beyond the 1920s, although even in 1938 the United States imported a few thousand medicinal leeches.

Leeches in Medicine - ...Now

Ironically, leeches found their way back into Medicine for the initial reasons they were advocated in the 19th century: to remove excess blood. In fact, they began to be used by plastic surgeons in the 1980's to reduce venous congestion in distal grafts, such as finger re-implantation, skin grafts and even breast reconstruction. This congestion causes an increase in

back-pressure that ultimately stops blood flow, leading to necrosis of the graft. Leeches happily drain away the congested blood, and hence improves the success rate of the grafting by providing time for the graft to restore its normal venous drainage.

The use of leeches in medicine is currently being researched by Biopharm, a leech farm based in Swansea. According to their data, patients are willing to let leeches suck their blood, if the technique is first explained to them. The bite is in itself painless, which is an asset for the technique. However, somewhat understandably, both patients and staff seem reluctant to accept leeches because of the appearance of the leeches. To overcome this hurdle, Callegari *et al.* devised the "leech amphitheatre" to conceal the leech within a plastic shield. They boldly claim that this will "contribute toward an increase in global acceptance of digital leeching."

However, there are several problems in leeching. As with any technique, there is the risk of infection. There is clinical evidence that syphilis can be transmitted when leeches are reapplied to different patients. Thus, a leech can only be used once. Furthermore, gut flora, like Aeromonas hydrophilia has been isolated from wounds resulting from leeching that had infected. Also, leeches not always start to suck blood, but may have to be coaxed into action. Another serious problem is the inherent nature of the leech to move about, and migrate to areas which were not intended to be leeched. In the 19th century, they were reported to have disappeared inside the rectum, attached themselves in the upper airway, and ascended into the uterus. In 1993 a leech disappeared from the site of a breast reconstruction and crawled between the stitches of the incision into the patient's breast.

As the benefits of judicious treatment with leeches are recognised, the range of conditions that can be treated extends. There are case reports of effective leech treatment for haematomas, purpura fulminans, paronychia, and even vascular congestion of the penis. Moreover, leech saliva may provide a host of new drugs. If we have learnt any lesson from the past, it is that controlled trials are essential, but leeches are probably back in the formulary to stay.

Leeches in Pharmacotherapy

Pharmacological interest in the leech began when hirudin, an anticoagulant, was identified in the saliva of leeches in 1884. It is this hirudin that enables a leech to suck blood without worrying about blood clotting and interrupting the flow. In fact, hirudin is still the most powerful anticoagulation known currently. Hirudin was used in early transfusion experiments 30 years before heparin was used. However, the limited source for the extraction of Hirudin precluded its use as a conventional anticoagulatory substance. It was the application of genetic engineering in 1986 that enabled hirudin to be produces in sufficient amounts for research and trials. Moreover, hirudin itself was used as a model to synthesis new thrombin inhibitors like Hirulog™. The latter has a shorter half-life and is both metabolised and excreted renally, factors which further augment its safety in different scenarios.

Unlike heparin, hirudin and hirulog act directly on thrombin, rather than through other clotting factors. They have a high binding affinity and specificity for thrombin. The mechanism of hirudin-thrombin binding appears to be unique. Both compounds have been investigated for reducing reocclusion after rTPA therapy. Hirudin is also being studied for maintaining adequate blood flow in the region of re-implanted digits and for the preservation of stored platelets. It may reduce metastasis in certain cancers and may play a role in managing complications of atherosclerosis.

The synthetic Hirulog has shown antithrombotic effects during coronary artery balloon angioplasty and cardiac catheterization. No clinically important side effects have been reported in animals or humans during hirudin or hirulog therapy.

In plastic and reconstructive surgery BIOPHARM® Leeches have helped to save the limbs of patients in 29 different countries.

During early clinical trials, hirudin, at doses that were subsequently regarded as being too high, led to excess spontaneous intracranial bleeding or other serious haemorrhage. On the other hand, in the same trial, lower doses of hirudin showed no additional benefit over standard heparin treatment. This was contradicted in a more recent study, which showed that at an intermediary dose the effects on cardiovascular death, new acute myocardial infarction, or refractory angina at seven days are encouraging. However, due to a rebound effect of the clotting factors, warfarin must be introduced before stopping treatment with hirudin.

The salivary glands of leeches also produce a cornucopia of other pharmacologically active substances, including an antihistamine, proteases, and, possibly, an anaesthetic and an antibiotic. Other antihemostatic factors in Hirudo medicinalis saliva include inhibitors of

platelet aggregation like apyrase, the platelet-activating factor antagonist, and also an inhibitor of coagulation factor Xa.

In Conclusion

With all their simplicity, leeches have taught us not to lose ourselves in our own haughtiness. Proving a technique wrong does not mean the whole of the principle is to be discarded, and medicine itself is now taking to imitate Nature, instead of setting out for new ideas. As a matter of fact, we cannot really condemn our ancestors for their practices when it is us who then find those practices, with some modifications, so innovating. After all, remember your MCQ days - they advice us that it's the first impression that counts!

'Breathing a vein!' by James Gillray, 1804.

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Letters to the Editor

In this issue, the Editorial Board will break the tradition of sending self-addressed letters...However, in the following issues, we hope to fill in the void with your comments, criticisms (hope there will not be many!) and anything you deem fit to be published in this publication, made for the students, by the students.
Remember that **Murmur** *is going online on the Internet. In fact, we already have our own email address at which you can send your articles and letters (see below). Otherwise, for those who do not have Internet access, we can receive mailed material; for details refer to below.*
Kindly do not forget that the Editorial Board reserves the right to decide what, and when, to publish in the publications, possibly with some amendments. Also, we remind that articles cannot be given back, though the diskettes will, if requested.
Thanks for your collaboration,
The Editorial Board.

The Board's message

The Editorial Board may be reached by post at the following address
Murmur,
Malta Medical Students Association - IFMSA (Malta)
Medical School,
St. Luke's Hospital,
Gwardamangia.
Malta.

Articles and correspondence may also be sent through email, at
murmur@medscape.com
or through our web site at
http://user.orbit.net.mt/mmsa/emurmur

We would appreciate if material sent to us are in electronic form, preferably in Word 6.0 format or in .rtf format. Material delivered to us cannot be sent back. The Editorial Board reserves the right to modify the contents of any material received.

Thanks for your collaboration.

RHÔNE-POULENC RORER

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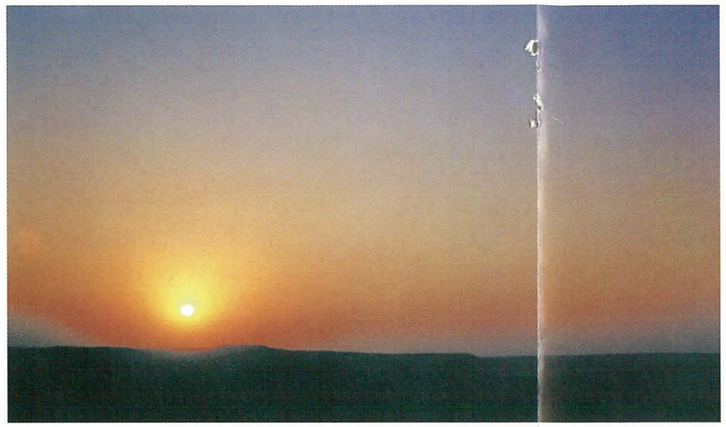
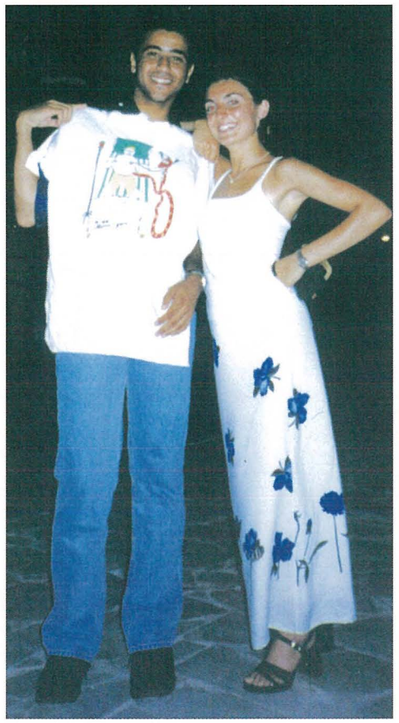
47th GA Egypt - 7/8/98

Russian Ensemble !



A magnificent sunset in Egypt



Nicky promoting her assets (the T-shirts!)

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E.O.M. 2000

By Gianfranco Spiteri

Exchange Officers' Meeting…sounds like some boring telephone company meeting…but in fact, it is really one of the two meetings organised by IFMSA (International Federation of Medical Students' Associations) every year. For many years, it has been a dream of many medical students to get one of these meetings organised here in Malta. The first guy to give it a try was Stuart, our old friend, and he has passed his idea down the generations to us third years.

Finding a comfortable chair proves no problem for Nicky!

What is an EOM all about?

The EOM is organised in March every year and around 400 medical students from all over the world represent their countries in it. It has evolved from a meeting involving only the Exchange officers of the countries members of IFMSA to one in which all committees take part. There are sessions for Medical Education, Public Health, Electives, Reproductive Health and AIDS, Refugees and Peace and the other parts of IFMSA. The meetings are held in a non formal way: after all, we are Medical Students, not law students! Ah…I nearly forgot to mention the late night parties and the International Drinking Night which are form a major part of the meetings…

'I am the genie of the lamp. Your wish is my command!'

What can you do about it?

A committee is being formed and members are needed to bring this meeting to Malta. The official bid will take place in March in Slovenia and to be sure to win we must be well prepared. The committee has to prepare a presentation, including a video and leaflets, in a very short time. Two medical students will be in Slovenia just for the presentation. After that, the organisation will involve finding sponsors for the EOM, working on deals with the hotels involved and preparing every smallest detail for the 5 days of the conference, including a web-site.

If you are interested in joining this committee contact any member in the MMSA executive board, or Gianfranco Spiteri, Nicky Camilleri or David Galea (all third year MD students).

IL-PENKATA

Greta is drinking? !

The third years, all trying to appear in the photo.

The effects of a caraf of home made wine!

The fifth years calmly enjoying their food.

Do Mints Really Cause Infertility?

By Nicky Buttigieg

In the following article, Nicky Buttigieg rummages through a mixture of any myths, rumours, or strange facts which medical students and doctors may find themselves faced with... Some of them you might have known, but for the others, you may not have any clue as to what the question or accusation is pertaining to! Go ahead and read on...maybe your jaw will drop, you could snort at the ridiculous statements, or you could die laughing!

So...does this bring a frown to your face (remembering the boxes of After Eight you scoffed over the dinner table at Christmas) or maybe a smirk of disbelief or scepticism. Actually, you might have not even heard about it. As expected, answers from fertility experts range. Some simply don't know; while others just reason it out by saying that: "Well people eat peppermints when they are reading, and if they read in bed, I suppose they might just forget to do other things you do in bed!"

The consensus reached amongst such experts regarding *The Mints vs. Fertility* battle is one of a Chinese wardround myth. But, myth or no myth, fear amongst newly-informed or impressionable patients exists, and a student or doctor faced with such a mint-mayhem should know some facts. And this is the scope of this article: to put some light on these rumours.

The rumour may have been started when a study was carried out in 1996 at the University of Rajasthan. In this study, male albino mice were fed 2.5mg or 10mg of extract of corn-mint everyday for 20 days. These mice turned out to have lighter testes, and were unable to fertilise fertile females, although their sexual performance and libido were not impaired. However, these were just mice, and the mint equivalent for such an effect on human males would be about 20-30 cups of mint tea drunk daily! Also, a point of interest is that corn-mint is not used in edible teas or oils because it has such a strong odour that it pollutes the more pleasant plants such as peppermint and spearmint. Industrial precautions are actually taken to eradicate it from mint plantations.

Another possible source of the myth could stem from mistakenly confusing different mint plants. For instance, an association has been postulated between a particular *Mentha* species, such as the penny royal, and fertility. This assumption could then be extrapolated, rather illogically, to include over all other mint varieties. Pennyroyal has a completely different chemical composition, and in the past, it has found some application as an abortifacient. It is therefore not typical of the mint family.

Shifting the balance slightly to the other direction, out of all the studies carried out, one claims association with infertility from a trace chemical (p-coumaric acid) found in the roots of peppermint plant. Another two studies allege that the trace chemical betaine found in the leaf is linked with abortion or disruption of the menstrual cycle.

On the other hand, two studies imply that peppermint might actually increase sperm and testosterone levels! However, for this to occur, enough peppermint would have to be consumed to increase the levels of zinc, of which traces are to be found in the leaves of the mint, up to 60mg/day. We are talking about a whole lot of sweets now!

Even if mints may not be implicated in fertility, one cannot doubt that mint plants do have medicinal properties. Peppermint leaf alone contains over 75 biologically active chemical constituents. So, it is not a surprise that research claims to suggest that between all these substances, mint leaves could have an effect on probably every system of the body.

The extensive use of peppermint and spearmint oils, the most volatile mint oils, is known world-wide. For instance, Spearmint sprigs are used to flavour drinks such as mint julep; meats, particularly lamb; and, in Muslim countries, teas. Oil from the leaves is used for flavouring chewing gums and medicines.

Peppermint oil also encourages sweating. It has powerful antiseptic and anaesthetic qualities, and its high menthol content enables its use for respiratory problems, colds and rheumatic and muscular pain relief. It is also used as a flavouring for toothpaste and other medicines.

Other mints are used as popular remedies for several ailments, including:
- as a relief of pain in the alimentary canal
- to stimulate bowel secretions
- as a prevention of nausea, indigestion, colic and flatulence, hence particularly useful in Irritable Bowel Syndrome.

Mints are also known for their:
- Anti-fever effects
- Anti-fungal effects
- Anti-viral effects
- Anti-dandruff effects
- Anti-chilblain effects
- Anti-halitosis effects

Whatever one might say, one cannot consider the effect of just one factor on the fertility of humans. After all, infertility is most often caused by so many complex factors and events that to be able to make a casual statement about a single chemical would mean that it would have to carry extraordinary and very convincing weight!
Even the reaction of the Rajasthani mice may be considered a psychological one rather than chemical one. Especially when one considers the fact that rats dislike peppermint intensely, and it is in fact being used by rat catchers world-wide!!!

A Letter to the...

In this issue, we have tried to integrate all the medical students from the different years. And what could be the best solution, other than some smart talk, and advice, from each year to the following one? After all, they say: ***kliem ix-xiħ, żomm fih!*** [listen carefully to an old person's talks]
So, we have asked a student from every year to write an open letter to their colleagues in the following one. For the fifth years, there is also a letter from a junior doctor. And here they are!

...Fifth Years, from a Junior Doctor.

I don't know enough!
I cannot remember what I just read!
There's too much to study!
I'm putting on weight by the hour!
I don't feel like going out!
I'm getting pimples on my face!
There are too many books!
I have to get those notes and past papers!
Is that book good?
What happens if I fail?
Others are studying more than me!
They already know more than me!
I'm not going to make it....

If you ponder on any one of the above pessimistic statements then consider yourself hit on the bregma by a sledgehammer by yours truly. OK, exams are coming up. So?

Are you going to make your life a misery in the process? Do you want to become a miserable boring doctor? If you enjoy wallowing in your sorrows then go ahead and lock yourself in yourself.

It is true that exam time is a stressful time but success depends squarely on your approach. Exams are a challenge...like going to war or preparing for a ballet audition. Think positive PLEASE!

There are endless methods for studying and revising so find your own. Studying as a group may work although not all the time. If you can't find a method and you oscillate from topic to topic well, that is a method in itself. Don't bother about "not knowing everything"- nobody does. Ignore others' study progress and don't bother comparing. Stick to basics. As one of the professors told us: 'you will certainly fail if you don't know the basics'. So it is better to know a bit about everything rather everything about a bit. Whether you are writing down answers or presenting a case, emphasise the salient points first. Then, if there is time, put in some detail.

Some students are scared stiff about presenting a case to the examiners. Remember to be appropriately dressed and well groomed. (You all heard of that student who missed an A grade because he had long hair). Think of the examiners as being your friends or your students and go through your presentation slowly and clearly. Even if you make a mistake during your presentation, correct it promptly and continue! And please don't panic or cry!

When you approach exams , continue doing what you enjoy doing. I personally enjoyed a 90 minute work out every night before returning to my books. Hibernation is OK as long as it is not accompanied by isolation. Isolation lowers your morale, so speak to somebody and express your feelings. Exam time is the time when most couples break up....anticipate the problem by explaining to your partner that you will be nervous during the coming months.

The objective of the examination is to make you safe doctors. You will ultimately impress not by the depth of your knowledge but by the way you relate to your patient. Never forget your bedside manners. Think of yourself as being doctors already! You have studied and deserve to do well. So go on! Think positive...sledgehammers are heavy things!

By Dr. Mark Xuereb M.D.

...Third Years, from a Fifth Year

At this time of the year, when I was in my third year, I used to tell the others in my group - Hey, we're halfway through! However, I have to say that my second half has flown away (or almost!) much faster than the first one. Our dear editor has pleaded with me to give you some advice about third year and when I told him that he was rather vague he replied that I had till Monday to send him my article. But then, I did not want to stress him too much so I gave in.

Joking apart, I must say that, in my opinion, the third year is the crux of the medical course. It should be quite plain sailing if you do not let third year catch you unawares. What I mean, basically, is that you should not be fooled by the fact that you might not have any tests during the year. Try to cover as much ground as you can as you go along. Believe me, trying to study all your Medicine, Surgery and Pathology (not to speak of your Pharmacology) in a couple of months at the end is pure hell, if not impossible - you would become an excellent candidate for psychotherapy. However, with some good planning along the year, third year should be alright.

Moreover, some patient clerking does not hurt even though third year is more theoretical than practical. As for me, I never mastered all the features of Cushing's disease until I saw a patient. Only then could I afford to forget all about the medieval pejorative terms we get in the books. Now, before some of you catch the bus to Dingli, I can assure you that third year is not only an academic experience but an interesting social one, too. You leave the pulsating campus and cross the valley to our cosy little medical school, where you cannot avoid seeing the same hundred people every day and getting to know their most bizarre habits. This might not be the ultimate for those who always yearn to meet new people, but that is when you really become part of one big family. You laugh together, you cry together and you launch yourselves in hysterical crises together, both before exams and after!

Some people might even get a romantic spark in medical school. It is all part of the highly complex medical student life cycle! So my advice to you, once you are here, is to assign your time so as to include a decent amount of studying and a similarly decent amount of partying. Then, in June, as most of my colleagues would strongly recommend, go for an exchange. They would give you a lot of reasons why to go on exchange: some would describe it as a great academic experience, others would tell you about the lots of new international friends they made and some might even dare call it a sexual experience. (Remember: Miss World is an Israeli medical student!) I would agree to all (please no inferences!) - take it from me who has been to three exchanges or summer schools these past summers.

The third and fourth years are the best years to go on an exchange because you would have covered most of the material to be covered. I only wish I could do it again in fifth year! So then roll up your sleeves, and remember, the exchange applications will be out soon!

By Neville Calleja

...Second Years, from a Third Year

I have kindly been asked by the editor to write this article about my experiences during the second pre-clinical year of our course, so as to perhaps offer some guidelines for the new and upcoming pre-clinical students. I must admit that it is difficult for me to do so, especially due to the fact that after some years of alternate demanding and pleading, the structure of the pre-clinical course underwent required changes that affect mainly the second year, and that, trust our luck, came into effect from the course just following ours. However I shall try to be of aid to those who have had enough sense of humour (or enough love of danger) to enlist as students of our Glorious Faculty.

The second year was admittedly a tough one, and there's no running away from it. Work started right from summer with several sun-bathing hours spent instead in the library carrying out research for the physiology long-essay and looking longingly at the sun outside. There was also the enticing project of anatomy that gave us the opportunity of carving out a name for ourselves with the lecturers by, er, carving out pieces of a cadaver, courtesy of its previous owner. Do not panic if you don't know where the hell to start from, nobody usually does. Besides the outcome may not appear to you to be excessively neat, but don't worry too much - after all you are not trained. The important thing is to make a good effort and to hand in a well-presented write-up with the project (N.B. the reward for your efforts is 5 marks in your final exam, which may seem pretty meagre but which may mean a pass or a different grade). By the way, if by the time this journal is in your hands either of these two trials of Hercules are not yet ready, roll up your sleeves and finish them up unless you want to be overcome by the workload at the end of the year.

Our own exams took place in February, which means we were slaving away at our books practically from the festive season. I might rack my brains to find a diplomatic way of telling you that they were God-awfully difficult, but I believe this carries across the message nicely. You students now have the possibility of spreading out your studies throughout the year, although admittedly you also must sit for papers in pathology and pharmacology. I seriously suggest that you divide the work by forming study groups with your friends, preparing notes and essays from past papers and sharing them between you. General pathology and pharmacology should not be too difficult to conquer. As for the two big bombers - anatomy and physiology - DO NOT leave everything for a cramming session in the last 4 weeks or you'll be sorely asking for a September sitting. Starting early is nauseating but necessary. However, do not spend sleepless nights studying even before the examiners have prepared the papers. Try to strike your own and you will triumph!

I seem to have dedicated this short article solely to the academic part of the second year, but as far as I can recall, the second year had only an academic part. Be patient, this year will pass, just like the other four, and what follows at Medical School is much better, believe me. Until you join us, best of luck.

By Adrian Pace

...First Years, from a Second Year

Congratulations, and welcome into the medical course. For some of you, the five following years will be filled with the most exhilarating experiences of your life and in which you will be enlightened by vast amounts of knowledge about the human body. For the rest of you, this may be your worst nightmare come true. You have, by now, gone through the initial shock of your first semester, in which you had to get used to University life and, moreover, to Anatomy & Physiology.

If you still feel a bit lost or put down after your first tests, don't think it is the end of the world. It is better to get used to being disappointed now than later on in your career (where even a slight flaw may make a great difference.) Progress tests may seem a nuisance. But do not get annoyed- when you arrive at your final exams, you'll have to pack into your brain a whole years' work in the same amount of time you have to study for just one progress test. So they are quite beneficial after all.

One question you may have asked yourself when studying for your tests is: "Just how much detail do I have to know?" If you want to test the limits of your intelligence, then go ahead and indulge yourself in the never- ending Gray's Anatomy, or read whole books on any physiological term or keyword you happen to encounter. This may be helpful. But don't count on it. Medical and Dental students have a tendency to miss the wood for the tree when it comes to applying what they have learned to real life matters. So, an important advice is not to make too much hassle over the details. However, BE SURE TO KNOW THE BASICS. Once you know the basics, the details will fit in like pieces in a puzzle. This applies to all subjects in your course, whether pre-clinical or clinical.

Competition is another problem you'll have to deal with. There is nothing wrong in trying to be better than others, but trying to put down others for your own sake is selfish and will not help in the long run. For example, one wonders how medical books are not infrequently found in other unrelated sections of the library! Considering that you will spend the next five years with your classmates, try to make friends with all of them, although it is wise enough to have a group of classmates who you can trust and study with.

If you want to prove yourself better than others and try your best to get the best results, fair enough. But staying up all night studying and in the weekend (unless an exam is approaching) does not necessarily pay off. Some of your classmates may be enjoying life and studying much less than you are and still achieve the same results as you do. Instead of envying them, try to allocate time for physical and social activities. All work and no play will make Jack a dull doctor! Mind you, when you graduate, you'll look back at your pre-clinical years as the only time during the entire course in which you could

afford to take it a bit easy.

However, don't push your luck too far. This course is one requiring more effort than any other course. And if you thought that Upper Limb was time-consuming, the coming anatomy topics will be much more difficult and will be covered in much less time. Try figuring out ways how to improve your study methods in order to optimise on time. Try not to miss dissections or tutorials, the knowledge gained from them is invaluable.

By experience, you are bound to leave the more boring topics locked up in the dungeons beneath your house. Beware: its you that is going to suffer when finals approach and you'll have to do a whole years studying in just a few days. God bless caffeine!

By the way, in case you are a person who plans his future, here are a few points we can give you. By the end of this year, you will all have to submit titles regarding your physiology long essay and anatomy project, both of which you start during the summer. The choice of titles is up to you.

In the case of physiology, try looking for recent issues (but not too recent) which seem interesting (to you, at least). Choosing too generalised a title may mean skimming through the subject. Choosing a specific part of a tiny area of a topic, on the other hand, may not be a good idea when it comes to looking for information.

Your anatomy project will not put on as much strain as the physiology long essay does, but it will still take considerable effort. Join a group of two, three or even four students. When choosing the title, don't limit yourself only to regions which you have done so far. Yet, again, the choice is yours, just try to keep the region to dissect small and simple.

Hope you make the best of your first year. Good luck!

by Ryan Giordmaina
& Martin Camilleri

And One by the First Years (With their impressions on the Course)

I first entered the physiology lecture room on a Friday morning at 9:45. A wave of stuffiness welcomed me warmly, but soon after I started to appreciate the air conditioning system that made me feel cooler than I felt in the scorching sun outside. I was full of expectations, yet I had no idea of what really expected me. I was still elated by the feeling of achievement that I had felt on having been accepted in the course I've always wanted.

What initially impressed me was the amount of data that was thrown at us during a 1 hour period. Luckily, the timetable doesn't have many of these one hour periods and I rarely have two consecutive lectures. This at least allows mental recovery. Therefore, lectures rarely result in a stressful experience. What is really stressful is the understanding and interpretation of the hierographics that I manage to produce after each lecture. Bu,t lately I managed to get used to them.

At first, I also had to pay extra attention not to put up my hand in pursuit of a solution to a mystery and in high pitched voice add 'Sir!' or perhaps even worse 'Miss!'. The teacher who until a few months ago was to be called 'Sir' is now a lecturer to be called 'Doctor' or even 'Professor'. And let's face it, after these people have studied for God knows how many years it is only fair to show them the required degree of respect.

I also had to become accustomed to the 'slight' morbidity of the dissecting room. Initially, to be completely honest, I found it quite revolting to sit down in the early hours of the morning, in front of already dissected human parts. And, to add insult to injury, the situation is not ameliorated by the mild smell of putrefaction strongly overridden by pungent formalin fumes. The thought that this was once part of a healthy human being makes me shiver. But, lately, the term 'specimen' has helped me to overcome the problem.

So just like being in any other course, there had to be many adaptations from my side. This was no big problem for me since I am quite a flexible person. However, till now I haven't mentioned one of the hardest challenges at university i.e. eating there. The canteen still heads first in the challenge charts for the ordinary university student. And well, after being for two hours in the dissecting room the meat pies do look rather suspicious.

And at last, but definitely not the least, there is the studying - in fact, lots of it. What was previously TV time has turned to note-scribbling time; what were to be Christmas holidays have turned into study periods, and some little - but really, very little - time left to cultivate any Christmas spirit. In fact, this year, rather than cooking cakes and puddings, I have preferred to tickle my tastebuds with these tiny pleasures while indulging myself in Last's anatomy.

By Agnes Cachia

The Editorial Team heartily thanks for the patience and collaboration of the authors of these letters and sincerely hopes that they will be of good use for those who will read them.

The President's Message

"The heaviest of burdens crushes us, we sink beneath it, it pins us to the ground. But in the love-poetry of every age, the woman longs to be weighed down by the man's body. The heaviest of burdens is therefore simultaneously an image of life's most intense fulfillment. The heavier the burden, the closer our lives come to the earth, the more real and truthful they become."

These are the words of Milan Kundera in his brilliant book "The Unbearable Lightness of Being". I believe in our ability to do many things: as students we should be at the forefront of change. Are you not sick and tired of the apathy and lethargy of the student population in general? I know I am. We need to play a more active role in the society that ultimately is our life and our livelihood. These are not excessive illusions of grandeur. Let us not only be ready to march for our stipends. There are many issues that we should be ready to partake in. It is now that we have the opportunity and the energy.

And this is exactly what the Malta Medical Students' Association is about: exchanges that build, parties that enliven, sports that heal, discussions that stimulate, projects that inspire. All these activities mean dedication and hard work; but they leave you feeling good about yourself and the people around you. We need to rediscover the pride of belonging to a group of young people who can still dream in the face of conformity, who can still act in the face of indifference. See beyond the unintended pomposity of these words, and instead focus on what you have to offer. Then, yes, we can say that we have really lived. Let us avoid a light existence and instead leave our mark. Together we have immense strength.

David Paul Galea
President - MMSA

THE GOSSIP CORNER

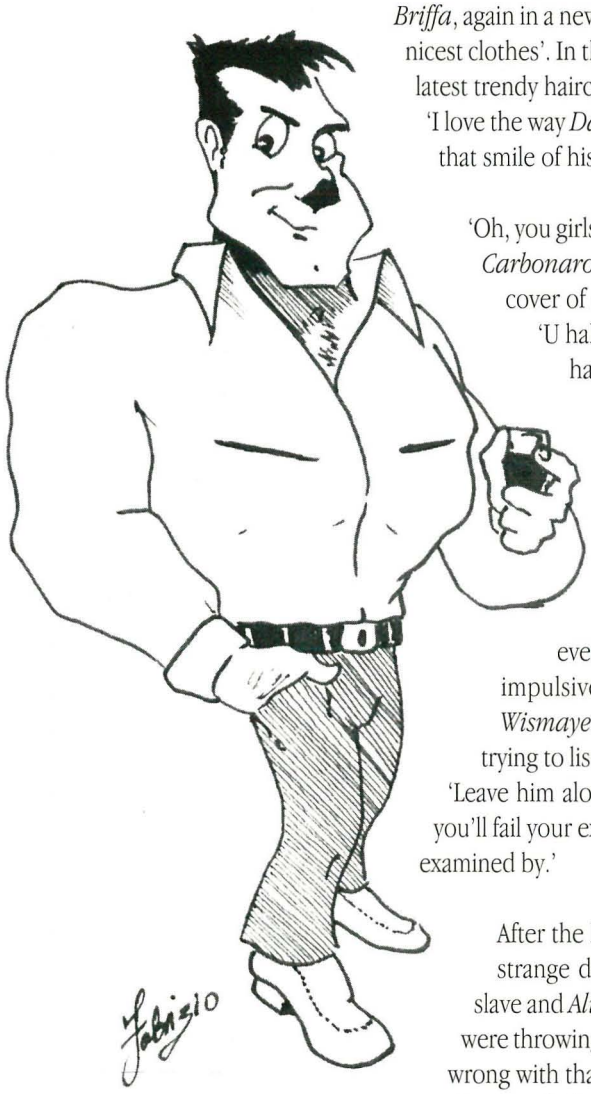
By Shirley Anne Vella

Did you ever comment on any of your fellow students? Have you ever wondered how people see you? Well, in the following article, we present the much asked for results of a questionnaire handed out to the clinical students. We remind everyone that this was done in a humouristic fashion, not as a beauty contest!

ABOUT THE BOYS...

It was a normal day at Medical School, and all the girls were gossiping near the conference hall like a group of hens. Their cackling was interrupted by our very own Johnnie Bravo *Stuart Schembri*, who dived onto his prey like a lecturer would pounce on someone who is smoking in the hall. Of course, he was always the easiest to talk to. But alas, his glory lasted but for a few seconds as the girls' attention was directed to a sound that was so familiar to them. Along came *Mark Portelli*, with that sexy walk of his. The girls' eyes fluttered as he moistened his fleshy lips. He was followed by *Nikolai Briffa*, again in a new T-shirt (mhux tal-monti!!), of course living up to his title 'the one with the nicest clothes'. In the meantime, *Malcolm* and *Conrad Borg*, the twins were showing off their latest trendy haircut. 'Two are better than one', the girls muttered between themselves.

'I love the way *David Paul Galea* looks at me with his sexy eyes,' one said to the other, 'and that smile of his. Ajma, my God, he's so sweet!'



'Oh, you girls don't know what you're talking about! Look at that fine specimen, *Francis Carbonaro*. He's got such a sexy voice, and that figure? Wow! He'd look great on the cover of a magazine!'

'U hallina! Has any of you girls checked out *Stefan Brincat*? Doesn't he seem to have the biggest pencil in his pocket?'

'U hej, how superficial you are. The character is the most important thing. *Wojtek Sawicki* is the friendliest person. Ara, on the other hand, *Edward Despott*, with that huge ego he has, is a real snob.' The chattering stopped as *Thomas Armatys*, Mr. Timid, walked into the lecture hall.

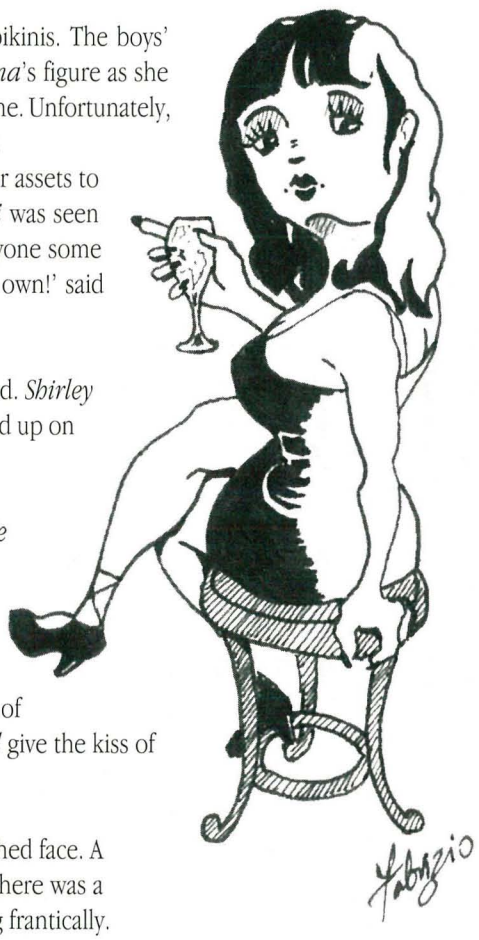
During the lecture, *Andrew Cassar* (Fifth Year), the most talkative and the funniest, was as usual blabbing away to *Lawrence Galea*, who everybody trusted with their secrets. *Pierre Bonnett*, the wild one and the most impulsive, was devising a way to annoy Mr. Eccentricity *Gert Attard. Richard Wismayer,* who was sitting behind them, was complaining as usual, since he was trying to listen to what they were saying, just in case there was something new to him. 'Leave him alone and pay attention,' said realistic *Andrew Mercieca* to Bonnet, 'or else you'll fail your exams. Look at *Jo-Etienne Abela*, he's the only one the girls would like to be examined by.'

After the lecture, the girls continued their non-stop daily gossip. 'Last night, I had a strange dream. I was stranded on an island with *Edward Despott* as my personal slave and *Alistair Pace,* who was constantly stone-drunk. In the meantime, some aliens were throwing pies at *Richard Wismayer*, who then called the MIB for assistance.' 'What's wrong with that dream?' 'Well,' replied the first one to the other, 'I would have preferred to be stranded on the island with *David Paul Galea,* obviously alone!'

ABOUT THE GIRLS...

It was a hot summer's day, and all the boys went down to Ramla Bay. Armed with sun tan lotion and dark shades, off they went to see the annual Miss Summer beauty contest, hosted by *Federica Apap Bologna*, Miss Sexy-Eyes and Sexy Voice. 'I wouldn't mind being stranded on an island with her,' commented one of the guys with a wink. All the girls were parading on stage in those ilbiesi mqactin, with the boys gaping in wonder. Especially at *Heidi Grech*, the one who was well known for wearing such fashionable clothes.

'Ajma qalbi xi tferfer,' said one, '*Greta Mifsud* smiled at me.'
'Who cares?' said another, 'ara *Debbie Sammut*. X'par xuftejn ghandha!'
No one said another word, as the beach babes appeared on stage in their mini-bikinis. The boys' attention was soon directed away from *Rita-anne Caruana*'s hair to *Liliana Cristina*'s figure as she strode across the stage. They all agreed she'd look good on the front page of a magazine. Unfortunately, or maybe fortunately for the boys, *Nicky Buttigieg*'s bikini top was too small for her.
After the contest, the boys stayed for a beach party. *Nicky Buttigieg* was using all her assets to flirt with everyone, whilst *Christine Cuschieri* was as timid as ever. *Michelle Spiteri* was seen walking alongside Mulder. *Maria Axiaq*, being so friendly, was offering to get everyone some drinks from the bar. 'As if you're gonna be able to carry all those drinks on your own!' said *Denise Debono* as realistically as ever.



Nearby, *Claire Falzon* was making everyone laugh, as she was in her talkative mood. *Shirley* 'wild thing' *Vella* was dancing her heart away, when suddenly she impulsively jumped up on stage, grabbed the mic, and started singing.
'X'ghidt? X'gara?' asked *Christianne Sammut* curiously.
'X' it-torok qeghda taghmel?', nagged *Claudia Cordina*, on seeing eccentric *Leslie Silver* pouring Twistees into her drink.
Nicky Camilleri was already stone drunk. 'If she weren't in that state, she would have been a good slave,' commented one of the guys. Even though drinks were abundant, the food was not, for all the pies had been taken by *Nicky Buttigieg*. In the meantime, a lot of people had to be rushed quickly to hospital, with a ticket of referral signed by *Christine Cuschieri*. Another crowd gathered to see *Greta Mifsud* give the kiss of life to one of the guests who had gone to swim in a state of inebriation.

All of a sudden, the skies opened up, and a bright light shone on everyone's astonished face. A ray of light beamed down from the undersurface of what looked like a spaceship. There was a loud zap, and Mulder was seen to grab his mobile phone suddenly, and start dialling frantically.

The Editorial Board would wish to remind everyone that this article was done in good faith, and has to be taken with a pinch of salt. A big thanks goes to Fabrizio Cali, 3rd Year Architecture, for his caricatures.

The Poet's Corner

Found during a ward round in Hospital, the following poem is really a reflection on the impact of words. Given that a doctor, and for that matter a medical student, will have to choose his words whilst talking to his patients, we thought it appropriate to include it in the **Murmur**.

Words

A careless word may kindle strife,
A cruel word may wreck a life,
A bitter word may hate instil,
A brutal word may strike and kill.

A gracious word may smooth the way,
A joyous word may light the day,
A timely word may lessen stress,
A loving word may heal and bless.

It's human relations that count.

By Anonymous

Rummaging through his own work, an anonymous Medical Student found this poem written three years ago. Given the recent developments in some MMSA activities, this medical student wished to share his artistic works with us, adding that the poem is to be taken with a pinch of salt. The Editorial Board has accepted the request, and reminds the readers that this poem is not intended to offend anyone.

Nemo me impune lacessit.

Spending years preaching coitus interruptus, rhythm and Billing's,
It did nothing to iron out our thousand and one misgivings.
It upheld the rights of women, yet wanted them at home,
And kept them from the altar, lest they find their way to Rome.
It preached about forgiveness, yet condemned with virtous zest;
It taught hard floors for sacrifice, then on feathered beds did rest.
It wept lukewarm tears for poverty, then adorned its walls with gold;
Tightened its grip on the hearts of men, afraid of losing hold.
It claims no form of prejudice, it teaches not to judge,
Then delivers a sentence of guilty, and never will it budge.
Its clothing reeks of mothballs, it cannot dismiss tradition,
And rather than aknowledge change, it hides behind religion.
It is a source of continuous interest, like little green men from Mars,
But now it's running rather stale - time to end the bloody farce!

The Pig

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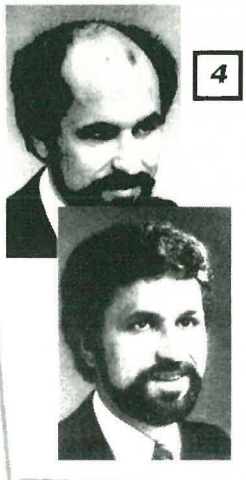

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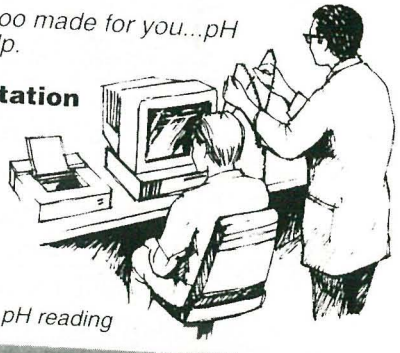

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JOKES

No self-respectable student magazine is published without its fair share of jokes. Here are ours

A SHORT HISTORY OF MEDICINE: "Doctor, I have an ear ache."
2000 B.C. - "Here, eat this root."
1000 B.C. - "That root is heathen, say this prayer."
1850 A.D. - "That prayer is superstition, drink this potion."
1940 A.D. - "That potion is snake oil, swallow this pill."
1985 A.D. - "That pill is ineffective, take this antibiotic."
2000 A.D. - "That antibiotic is artificial. Here, eat this root!"

A doctor and his wife were having a big argument at breakfast.

"You aren't so good in bed either!" he shouted and stormed off to work.

By midmorning, he decided he'd better make amends and phoned home. After many rings, his wife picked up the phone.

"What took you so long to answer?"
"I was in bed."
"What were you doing in bed this late?"
"Getting a second opinion."

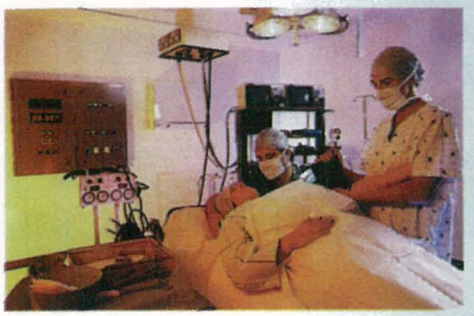
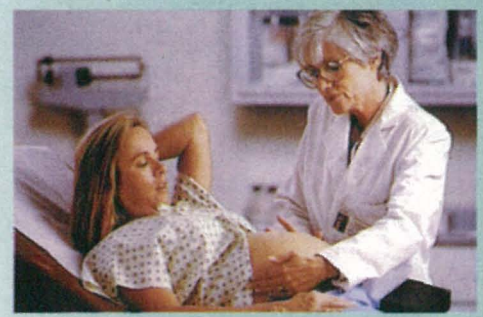
A young woman went to her doctor complaining of pain.
"Where are you hurting?" asked the doctor.
"You have to help me, I hurt all over", said the woman.
"What do you mean, all over?" asked the doctor, "be a little more specific."

The woman touched her right knee with her index finger and yelled, "Ow, that hurts." Then she touched her left cheek and again yelled, "Ouch! That hurts, too." Then she touched her right earlobe, "Ow, even THAT hurts", she cried.

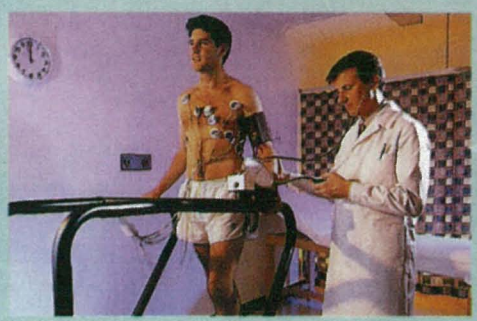
The doctor checked her thoughtfully for a moment and told her his diagnosis, "You have a broken finger."

If you wish to send us any jokes, kindly send them to the Editorial Board. We will appreciate any kind of jokes, even those not medical.
Thanks for your collaboration.

ST. PHILIP'S HOSPITAL





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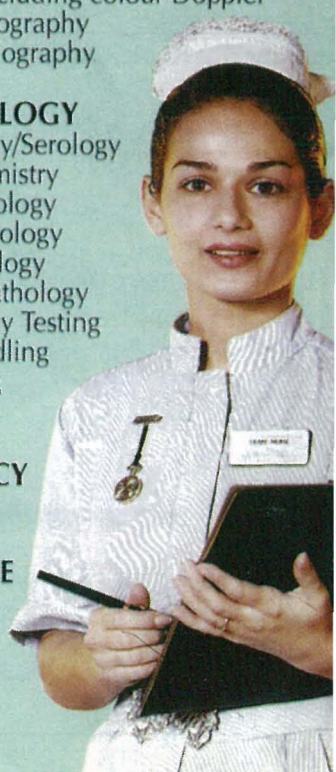

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