LETTERS TO THE EDITOR

PRE-PERITONEAL PROSTHETIC REPAIR OF RECURRENT INGUINAL HERNIAE
From Major N B Corner, RAMC

Sir, The surgical treatment of inguinal herniae is considered by some as a problem which has been overcome. There are however many controversial points, and a wide discrepancy between the monotonous excellence achieved in personal series and the uniformly depressing results obtained by impersonal statistical reviews.

It is now over 100 years since the fundamental operation of Edoardo Bassini was described in his eminent monograph of 1889 "Nuovo metodo operativo per la cura dell'ernia inguinale". No method can be considered ideal, but undoubtedly the most recent and effective surgical techniques currently employed in the initial treatment of inguinal herniae are inspired by his fundamental work.

Over the last 100 years a major advance has been the development of commercially available, completely inert and perfectly tolerable artificial meshes. There has been a growing interest, particularly in France and the USA, in the use of prosthetic implants in the repair of inguinal or more commonly recurrent inguinal herniae.

Fifteen years ago Calne (1,2) described a technique using mersilene mesh behind the rectus abdominis for the repair of bilateral herniae. Thirty patients were followed for 11 years with "good" results. Other surgeons, in particular Stoppa of France have reported encouraging results with similar pre-peritoneal prosthetic repairs (3) but this technique is yet to be widely accepted by general surgeons in the United Kingdom.

Reinforcement of the fascia transversalis is performed by interposition of a synthetic (Prolene/Dacron) mesh between the muscles and peritoneum aiming at the restoration of the continuity and tone of the abdominal wall against the intra-abdominal pressure. A midline pre-peritoneal approach allows the positioning of bilateral prostheses sutured in place, or one Giant Prosthetic Reinforcement of the Visceral Sac (GPRVS), kept in place for 11 years with encouraging results with similar pre-peritoneal prosthetic repairs (3) but this technique is yet to be widely accepted by general surgeons in the United Kingdom.

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This is a relatively simple operation even in multirecurrent herniae. Sepsis remains a theoretical but rarely encountered problem after prosthetic repair and thus patients require selection for this operation. A series of patients with multirecurrent inguinal herniae have been treated by implantation of a standard prolene mesh via a lower midline abdominal, or transverse suprainguinal incision. The pre-peritoneal plane was entered and the inguinal areas exposed. The defect in the abdominal wall is easily demonstrated and most often found to be medial to the deep inguinal ring. The hernia sac is reduced, or occasionally amputated leaving the tip of the sac in-situ and repairing the peritoneum over the reduced abdominal contents. A large Prolene mesh patch is then sutured over the defect which is obliterated with a simple prolene suture where practicable. The "spermatic cord" consists of just the vessels and the vas deferens at this point, and is usually simply lateralised by the mesh, however occasionally cutting or notching the mesh to allow passage of the cord structures seems to give a more aesthetic repair.

Alternatively or additionally a rolled up "cigar" of prolene mesh may be placed in the defect and held in place with two transfixion sutures.

These techniques have been used with apparent success on over 20 patients with multirecurrent inguinal herniae. The advantages of the prolene mesh preperitoneal repair are that it is simple, comprehensive and physiological. The simplicity is enhanced by the exposure gained though a midline incision which allows bilateral access to the deep recesses of the pelvis. The technical demands of strict recognition of precise and often obscure anatomical detail imposed by the sutured iliopectineal tract repair are not necessary in this technique. The potential defects of suture placement and tissue weakness are eliminated. The repair is comprehensive for three reasons:

1. Complete dissection of both groin areas is easily performed from the midline incision;
2. All hernia sacs must transgress this potential space; therefore the "missed" hernia is eliminated;
3. The mesh reinforces all potential weaknesses of the abdominal wall providing prophylaxis against future herniation.

The prosthetic mesh redistributes normal physiological intraperitoneal pressures throughout the abdominal wall (3). Increased intra-abdominal pressures lead to a greater distribution of forces and greater fixation of the mesh. As long as the mesh is intact, and adequate lateral and caudal extension has been achieved, herniation is prevented.

This simple method of repair of multi recurrent herniae is commended to the general surgeon.

I am etc

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REFERENCES
EXPERIENCES IN A LEVEL-1 TRAUMA CENTRE - REPORT
From Maj F Khan, RAMC and Mr A W Wilson, FRCS

Sir, We read with interest the article by Major R Pilcher on his experience in Jacksonville, Florida. It seems that we are doing a lot of transatlantic trade in Trauma Training at present. It was also interesting to see that one of your other contributors (Surg Lt Cdr T J W Spalding) availed himself of the British experience at the Level 1 Trauma Unit at The Royal London Hospital, Whitechapel prior to the Gulf Conflict.

Although our Saturday night knife and gun club is not yet as exuberant as that in Jacksonville, we compensate for this by letting our Registrars fly with the helicopter and practise their ATLS skills on scene. This exposes them to four trauma resuscitations each day. They also gain experience in the Emergency Room, which is every bit as well equipped as its opposite number and has five bays, each able to support operative intervention as necessary.

We have been privileged to have three forces doctors work with the Helicopter Emergency Medical Service and hope that this close association will continue. Unfortunately, there does seem to be a feeling that British trauma is still in the doldrums and there is a tendency to ignore the improvements which have recently occurred in British trauma practice. There is good and bad in America but only the good is cited. Time for us to blow the trumpet for good trauma practice in Britain?

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ADVANCED TRAUMA LIFE SUPPORT
From Lt Col M F P Griffiths RAMC

Sir, The recent article by Palmer et al (1), proposes a new form for use in A & E departments. The aim is to improve management of trauma patients by encouraging a standardised approach to documentation, “ensuring that items are not forgotten or missed”, leading to a uniform standard of trauma care.

If such a standardised approach is to be widely introduced and used, as suggested, as a medico-legal and audit record, “Ophthalmologist” should be explicitly included in the “Secondary Survey” and “Referrals” sections.

Although ophthalmic opinion would certainly be requested in a patient with obvious periorcular injuries, it should also be requested as part of the secondary survey, in all patients in whom the eyes can not be examined. Closed lids may hide any ocular injury; blunt trauma can be extremely difficult to detect, and inexpert examination in the presence of a penetrating injury can further damage an eye. The presence of an open eye injury may also affect anaesthetic management and the order in which required surgical procedures are carried out.

The importance of early ophthalmic examination was recently brought into focus by an RTA trauma case. The patient had orthopaedic injuries and was irritable due to a head injury, making routine examination very difficult. No request was made for an ophthalmic opinion for 24 hours, and the notes recorded “Eyes closed by swelling”. Although there were no obvious lid or periorcular injuries, the patient had penetrating injuries of both globes, with total disruption of the right cornea and expulsion of the lens and iris.

While not usually life threatening, the consequences of a missed open eye injury are potentially serious in terms of the future prospects for vision. The potential medico-legal consequences are of course, equally serious.

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REFERENCE

EXERCISE-INDUCED INJURIES — MANAGEMENT OR PREVENTION?
From Lt Col B P Bergman, RAMC

Sir, Colonel Hopkins’ Editorial (JRAMC Oct 92) makes the long-overdue point that the Services provide the ideal background for establishing specialisation in sports medicine as a military discipline. However, this post hoc, propter hoc proposal does not address the more fundamental issue of whether many of these injuries are preventable in the first place.

In recent years, considerable progress has been made towards improving safety in the workplace. The Health and Safety at Work Act, Control of Substances Hazardous to Health and related legislation have done much to minimise the work-related injuries which until recent years were accepted as inevitable.

As Colonel Hopkins rightly points out, exercise is an integral part of a soldier’s training, and thus can reasonably be considered to equate to his “workplace”. But with one exception (the successful reduction in incidence of anterior knee pain consequent on the introduction of training shoes, rather than boots, for distance running), little has been achieved in respect of what might be termed “Health and Safety in Sport”. Indeed, there is almost a vicarious “macho” image to the soldier on crutches as a result of a football injury, despite the resultant loss of effective manpower.
Without doubt, many of the exercise-related injuries which present to the Regimental Medical Officer are preventable, and a few examples drawn at random will serve as illustration:

Failure to “warm up” prior to exercise, leading to muscle injuries.

Inappropriate clothing; the boxer who develops heat illness whilst trying to “sweat off” extra weight, or the footballer who sustains a foot injury whilst playing in training shoes rather than football boots.

Taking part in competitive sport whilst not in training; the older ex-player cajoled into making up numbers for a team. The traditional Officers v Sergeant Mess Christmas rugby match rarely fails to produce a casualty!

Insufficient attention to rehabilitation after injury; the soldier who returns to training, only to report the following day with a recurrence of his symptoms because his first activity was a five-mile run.

Care of the sportsman or soldier in training need not in any way detract from the value of training; the “no pain, no gain” theory has long been shown to have no place in modern training techniques. Indeed, by reducing loss of training days due to injury, a risk-minimisation approach will increase the benefits of training to the individual.

As numbers fall in consequence of Options for Change, conservation of our precious manpower resources must assume paramount importance. Nor can we afford to ignore the increasing importance of recent changes in legislation, allowing the soldier to seek compensation for injury. Unless the safety aspects of both recreational and military training are addressed, a loophole remains which operates to the disadvantage both of the soldier as an individual and of the Army as a whole.

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