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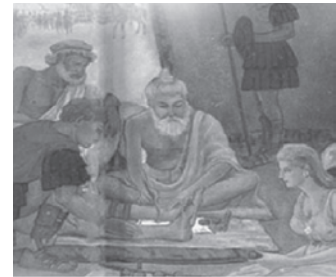
# RURAL SURGERY

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## I N T H I S I S S U E

- New year's Message from the Editor
- Mesenteric Ischaemia in Rural Surgical Practice  
*Dr. Sitanath De*
- CAPD In a rural area: Is it a worth while option?  
*Dr. J.Gnanaraj, Dr. Lalhlmpuii*
- Relevance of Plastic surgery in rural surgical "camp": Few thoughts  
*Dr R P Usgaocar*
- **IFRS Section**  
Non- operative Fracture treatment -A Forgotten Option?  
*Dr. Gabriele Holoch*
- Steps of caesarian section (based on evidence)  
*Dr.S.K.Baasu*
- A "Do it yourself" method for Removal of Urinary Stones!  
*Dr. R.D.Prabhu*

1  
2  
5  
7  
10  
15  
19

## New year's Message from the Editor

Dear Friends,

Here's wishing everybody a glorious 2007 — a brand new year that will spark everlasting hope to hold in your hearts; a hope for peace, health, happiness and prosperity.

If the year 2006 has been a year of endless possibilities, 2007 should be the year for action. The annual ARSI conference, the much awaited IFRS conference in Tanzania, long cherished DNB Rural surgery course (for those associated with it) and many more such milestones that are yet to be achieved need your active support, involvement and participation for their success.

Time rolls on. With this current issue of rural surgery my tenure as editor will stretch into 4<sup>th</sup> year. I thank all those who encouraged me throughout my journey and offered their wishes for success — they touched me deeply, and I carry them with me still. I take this opportunity to thank all the members of the editorial team, to contributors and readers, to our IFRS members from overseas for their valuable patronage for the smooth and effective running of this bulletin.

80% of rural surgeons also practice obstetrics and gynae besides their routine general surgical work to fulfill the felt need of the community. Besides usual articles, case reports and other relevant information related to rural surgery, from this issue we start a new column titled "G&O for rural surgeons". Through this column evidence based guidelines and management of common gynae and obstetrics problem will be discussed. All are welcome to participate in discussion, share their experience of managing the problems through this column.

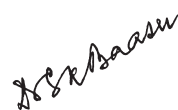
My earnest appeal to all for sending me their articles, case reports, relevant information related to rural surgery etc. still continues. Rather you may take it as "*cri de Coeur*". And yes, just to remind everybody, the yearly "Rural Medicare Society Award" given to the author of best article published in the bulletin is still on.

I encourage our readers to use the Letters to the Editor section to air their views and/or criticism of the papers published or any other issue related to rural surgery. This may enhance a useful scientific/meaningful debate.

Finally as a suggestion for all new submissions, may I request everybody to add references and your personal email ids/contact details at the end so that any correction or clarification can be sought quickly.

I close with this encouraging message from Henry Wadsworth Longfellow.

*"Look not mournfully into the past. It comes not back again. Wisely improve the present. It is thine. Go forth to meet the shadowy future, without fear, and with a manly heart."*



Dr.S.K.Baasu  
Hon. Editor

**This issue is sponsored by Rural Medicare Society, New Delhi**

# Mesenteric Ischaemia in Rural Surgical Practice

Dr. Sitanath De FRCS, FARSI

## Introduction

In rural surgical practice, Mesenteric Ischaemia is one of the rare causes of presentation with acute abdominal pain. There are plenty of other frequent causes for such presentation, e.g. Perforated Appendicitis, Perforated D.U, Acute Pancreatitis, Strangulating intestinal obstruction etc, which are so common, that the possibility of Mesenteric Ischaemia does not immediately come to mind. The diagnosis becomes evident on exploratory laparotomy when all the locally available diagnostic procedures prove inconclusive and the patient develops signs of peritonitis. Once diagnosed at operation, several thoughts run in the surgeon's mind. The purpose of this article is to share the thoughts with our rural colleagues who might have the same experience.

## Case report

On 05.11.06, a young man of 34, presented with pain abdomen for 56 hours that was acute in onset after drinking a glass of water at 7am, continuously increasing in nature. The pain started in mid-abdomen and gradually spread over the entire abdomen. There was no nausea or vomiting. There was no bowel movement since the onset of pain.

The patient was referred to our clinic from a village, 50 km away, with provisional diagnosis of perforated D.U. He was an agricultural laborer and was in the habit of drinking "Mahul" (country liquor) 400mls/day, 5days a week. There was no previous incidence of such pain.

On exam: - The patient was dehydrated, his B.P. was 110/70mm.Hg and his Respiratory and C.V.System looked normal. The abdomen was distended and tender everywhere. Bowel sound was absent. There was no obliteration

of liver dullness. Rectal examination showed tenderness at fingertip. His urine was high coloured and the output was scanty.

The following investigations were carried out:

W.B.C>13,000/cmm (poly 80%, lympho 15%, Eosino 4%, Mono 1%)  
Serum amylase 65.2 I.U.  
Serum electrolytes: Na 137.8 meq/lit  
K 3.1 meq/lit  
Cl 96.2 meq/lit

X-ray Abdomen (erect): - Dilated loops of small bowel with fluid levels predominantly in central part — suggestive of sub acute intestinal obstruction.

U.S. G. Abdomen: - not helpful

He was put on naso-gastric suction and IV infusion and prepared for Laparotomy on 06.11.06.

Laparotomy Findings (through Rt. Para median incision):

There was some sero-sanguineous fluid in peritoneal cavity. Part of the distal small bowel looked gangrenous. The colour of the proximal small bowel and the last six inches of the ileum looked normal. The mesentery looked thick, edematous and inflamed.

As gentle handling of the gut started to produce deterioration of colour change in the bowel, excision anastomosis was carried out without wasting any time. The peritoneal cavity and the bowel were cleaned with warm normal saline solution. The anastomosis site looked healthy and of normal colour. The wound was closed in layers after intra peritoneal instillation of metrogyl solution.

The patient developed fluid and electrolyte imbalance, oliguria and paralytic ileus post-operatively. Once the imbalance was corrected, the patient started to have normal urinary output and bowel movement. The malena stool also became normal after two bowel movements.

The patient was discharged in good condition on 11<sup>th</sup> post -op day.

## Discussion

In my personal experience, the incidence of mesenteric Ischaemia is low. I have seen only three cases in my whole surgical career. It is possible that, because of the dramatic nature of the cases, the patients are taken straight to the hospital emergency Department. The first case, which I saw in England in 1969, was diagnosed only after opening the abdomen. The whole small bowel was gangrenous. The consultant was called in. He examined the case and advised to close the abdomen. The other two cases were similar. In both the cases the proximal part of jejunum and distal several inches of the ileum were spared. Resection anastomosis was performed in both cases. Both were discharged well. One was lost in follow up after two years.

During closure of the abdomen in the recent case, I felt myself quite inadequate in the sense that I was unable to find out whether the Ischaemia was due to arterial thrombosis or embolism or venous thrombosis. We have no facilities for intra operative investigations by X-Rays, angiography, duplex Doppler U.S.G., or intra operative cannulation of an artery for thrombolysis. Therefore we had to settle for excision anastomosis as there was a reasonable length of small bowel for quality survival.

Again it is necessary to make sure of a viable anastomosis without producing stenosis by selecting viable sites of excision. An intra operative duplex U.S.G, picking up pulsatile signal at the anti mesenteric border indicates viability of the gut, but it was not available

locally. In such circumstance, the surgeon is forced to rely on his visual judgment, to select the site of anastomosis. Nor was it possible to resort to C.T. Scan and M.R.I. to find out the venous cause. The excision anastomosis must be quick and performed with utmost care as it is common to see the progressive change of colour intensity in bowel wall even with gentle maneuvers of the gut.

It is distressing that it was not possible to determine the coagulation status of the patient. That makes the decision difficult whether to put the patient on anticoagulant for some duration in order to prevent further thrombosis, for fear of the risk of hemorrhage.

I feel, even with tremendous progress in vascular surgery, the rural surgery for Mesenteric Ischaemia remains at the same stage in 60s i.e. diagnosis by laparotomy and quick excision anastomosis, if feasible. Even though the mortality is 50% in cases with peritonitis.

The laboratory facility to exclude underlying hypercoagulable states e.g. deficiency of anti-thrombin III, protein-C and protein-S would be a great help. One simple possibility is to measure the generation of thrombin. This balancing measurement can divide reasonably accurately into those likely to have another thrombosis, and may provide valuable information to the doctor whether the patient should be advised to continue with the anticoagulants. Austrian research has shown that the risk of another thrombus within 4 years of the first episode was only 6.5% in patients when thrombin generation peaked below 400nM compared with 20% in patients whose thrombin generation peaked higher than 400nM.

It would be interesting to know whether interventional therapy such as mesenteric angiogram followed by stenting or thrombolysis would come into the act, if early diagnosis is done. For this however, a patient history of intestinal angina must be undertaken.

## Conclusion

A rare case Mesenteric Ischaemia encountered in a rural surgical practice is discussed. Although the urban-based surgeon would expect to have the back up of diagnostic facilities to support him, such assistance may not be available in an acute emergency in the rural area. This case stresses the continued importance of very

accurate clinical judgment in such a situation. It is imperative that the aspiring rural surgeon develops the confidence to rely on his own clinical findings in cases where he has no access to further diagnostic aid.

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- 1) J.A.M.A. 2006; 296: 397-402
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## Rare Good News about AIDS (From New York Times)

**Published: December 14, 2006**

The announcement yesterday about the results in two African studies of male circumcision may be the most important development in AIDS research since the debut of antiretroviral drugs more than a decade ago. The National Institutes of Health halted studies in Uganda and Kenya when it became overwhelmingly clear that circumcision significantly reduces men's chances of catching H.I.V.

The studies recruited men willing to be circumcised and randomly assigned them to immediate surgery or to a control group. In both studies, the circumcised men acquired half the number of H.I.V. infections as their uncircumcised counterparts did. The studies confirm the results of a trial that ended last year in South Africa, in which circumcision prevented 60 to 70 percent of new AIDS infections.

Until now, efforts at AIDS prevention have largely failed. Little wonder. It requires people to resolve - every day - either not to have sex or to use condoms. Circumcision, by contrast, is a one-time procedure. It is familiar and widely accepted all over the world, even by groups who do not practice it. And safe circumcision does not require a doctor. Community workers and traditional healers can be trained to do the operation safely and given the correct tools.

Based on the South African results, groups like the United Nations AIDS program and the World Health Organization were already discussing how they might promote circumcision in countries around the world. They should now move as quickly as possible.

Governments and international donors should also work urgently to provide new financing to help high-risk countries train community workers to do safe circumcision. News of the South African results has already led to a surge in demand for the procedure across Africa, and clinics that now offer it have long waiting lists.

Any campaign will have to be coupled with warnings that circumcision offers only partial protection against H.I.V. and should not become a license for risky sex. Governments must continue to promote condoms and partner reduction.

For years, the holy grail of AIDS prevention has been a vaccine, even one that is only 50 to 60 percent effective. A real vaccine is years away. But as of yesterday, we know its near equivalent exists. International donors and governments should join together to spread the good news about circumcision and make the procedure available everywhere.

# CAPD In a rural area: Is it a worth while option?

Dr. J. Gnanaraj MS, MCh (Urology) Dr. Lalhlimpui MBBS

## Introduction

*Key words: CAPD — Continuous Ambulatory Peritoneal Dialysis*

Until recently patients in rural areas of India could not afford some of the essential much needed treatment because of the high costs that were involved. The availability of Indian made CAPD dialysate has made Continuous Ambulatory Peritoneal Dialysis a treatment option in rural India. We describe our experience with a small series of patients who had CAPD.

## Patients and methods

The records of patients who underwent CAPD at Burrows Memorial Christian Hospital from January 2006 were reviewed.

The patient and relatives were interviewed during follow up.

At the beginning the CAPD catheters were placed under local anesthesia in the hypogastric region through a subcutaneous tunnel placing the tip in the pelvis using the cystoscope and camera to visualize the placement. In the last 2 patients the catheters were placed in the right hypochondrium between the liver and the costal margin under local anesthesia and using the finger to guide the catheter placement.

## The Social Impact

- ◆ One patient had to sell the house and part of the land to cover the treatment costs

## Results

Patients No.	Indication	Duration of CAPD	Current Status	Complications	Social Background
One	ARF	6 weeks	Normal	None	Very poor. Daily wages
Two	CRF	8 weeks	Stopped Dialysis	None	Housewife Lower middle class
Three	CRF	12 weeks	On dialysis	Peritonitis once	Driver Middle class
Four	CRF	9 weeks	Stopped Dialysis	Blocked catheter	Retired Middle class
Five	CRF	14 weeks	On Dialysis	Blocked catheter and peritonitis	Farmer Middle class
Six	CRF	7 weeks	Stopped Dialysis	None	Housewife
Seven	CRF	3 days	Died	Blocked catheter	Shopkeeper Middle class
Eight	?ARF	4 weeks	On dialysis	None	Teacher Middle class

- ◆ Three patients stopped dialysis after they ran out of money having used all their savings
- ◆ The patient with ARF was able to pay less than 5% of the cost of the medicines used for him and none for the rest of the treatment
- ◆ None of the patients could afford the expensive catheter after the first one was blocked

## Discussion

The cost of the catheter that is used is about Rs. 16000 (200 Pounds). The dialysate that is used everyday is about Rs. 420 (5 Pounds). These were about three to four times more expensive a decade ago when they had to be imported.

However despite the reduction in cost many of the rural patients could not comfortably afford CAPD. The families use up all their savings and the patients do not go back to useful or productive work. The consensus among the relatives of patients with chronic renal failure was as follows.

The indication for CAPD is for buying time to settle the family affairs and say good bye to the family members.

The cheaper catheters are a better option even if it involves changing catheters surgically as this option is less expensive.

Peritoneal dialysis catheters can be placed under local anesthesia using a peritoneoscope. Although this procedure has been shown to be equal, if not superior, to surgical placement in a number of trials, the technique is not widely used<sup>1</sup>. Catheter tip migration, with or without adhesions, cause malfunction of CAPD catheter<sup>2</sup>.

Three out of six catheters placed in the pelvis were blocked while none of the two catheters in the right hypochondrium was blocked. The patient with ARF who underwent peritoneal dialysis presented in shock after perforation of Meckel's diverticulum and peritoneal dialysis was possible despite peritonitis.

Although it is a short series, it appears that CAPD has a role in rural India when the renal failure is reversible or there is need for time to settle affairs.

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*Imagination is essential. It is the psychic flexibility to see with new eyes. Imagination can break the trance of the ego.*

## ***Relevance of Plastic surgery in rural surgical "camp": Few thoughts***

**Dr. R. P. Usgaocar MS MNAMS FRCS (ED), FRCS (Plast)**

The beginnings of Plastic surgery from Sushruta as well as its renaissance/rebirth during the last century have been in the immense role it has to play in reconstruction of the human form, whether from disease or injury.

Recent years have however seen a major shift in the popular perceptions of this field of surgery, which is both art and science. Today it is equated with the glamour world — nose jobs, breast implants, facelifts etc - all to do with the bold and beautiful (and of course rich). People see plastic surgery as something the well to do indulge in to add colour to their life of idle luxury, of course in exchange for large sums of money.

No wonder that, when I mention in polite society, my regular forays into plastic surgery in camps in a rural setting, I am met with incredulous looks and with unexpressed misgivings about my veracity and/or sanity. To most people the words 'rural' and 'plastic surgery' are mutually contradictory! They simply cannot fathom how I am going to poor communities to do facelifts and boobjobs.

Yet there are so many of my colleagues who are regularly giving their time and skills to bring succor to the needy — those who have no recourse to the cities or their expensive medicare. Often this surgery is performed in fairly basic infrastructure setups. Is this wise, is this practical or is it downright foolhardy and dangerous? The truth can be deceptive to fathom.

The general perception of 'camp' surgery is that standards are poor — in asepsis, surgical skills and aftercare and that these are often used as training sessions on voiceless human guinea pigs. The high-tech and glitz of the corporate hospitals now help to reinforce this feeling.

In plastic surgery where the result is all too visible, infection and poor result is a disaster to be avoided at all costs. So how can you even think about doing it in suboptimal conditions? This seeming paradox is a classic of how weakness can become strength.

Unlike many specialties (which are now controlled intensely by the pharma and related tech industries), routine plastic surgery is still a place where individual skill is not subservient to technological gadgets costing vast amounts. Of course implants and some fields like micro vascular surgery are a different ball game. Most plastic surgery, that can transform people's lives in rural poor households, can be performed with simple instruments with minimal medications and few sutures.

Plastic surgeons are hammered into being respectful to tissues, use fine instrumentation, avoid cauterization en masse and use fine sutures very sparingly. Surgical standards have to be higher to compensate for the suboptimal conditions. All of this translates into a high possibility of safe healing sans infection and sans the 4<sup>th</sup> generation antibiotics that are de rigueur in 5 star hospitals (with possibly similar infection rates).

For results to be gratifying, it is also important to extend this gentleness in tissue handling to gentleness for the individual patient and to the support staff. Contrary to the impression that these village people are tough and hardy, they though stoic by nature are totally petrified and awed by the onslaught of the experience, particularly the O.T. A little warmth and empathy — the vocal anaesthesia is a must.

To get good work from the support staff, motivation has to be high as often they are





exposed to long working hours and strange faces and personalities bearing down upon them. The OT staffs are also unfamiliar with this type of surgery. This is where plastic surgery has a great plus point, as results can be dramatic and visible on the table. The joy of seeing a child with a cleft lip parody of a human face transformed in short while to a wholesome human being is enough to raise motivational levels rapidly.

Hurdles and weak links in the chain have to exist and efforts have to be made to get over them. Post operative care is the single most relevant bugbear. The local medical person is the key here. With adequate detailed written instructions on the schedules of dressings, suture removal and splint age etc; these can be organized to satisfaction. The first few interventions have to be done with the surgeon present so that practical training occurs. Improvisation in splints etc to make them affordable have to be thought out - we Indians are usually good at it.

Two other issues often crop up. The organizers often tend to use the activity as a short cut to seeking specialized care for their own persons to the detriment of the project, seeking surgery for small moles, cysts or scars. Tactfully and with full transparency

these have to be rationed to a certain amount of time, so that the more deserving do not suffer. In the interests of local whole hearted support, this is a small price to pay for the greater common good.

Another contentious matter is whether these camps should be free. Some contribution from the person, according to ability, at least to offset partly the costs seems to be the best option. Usually, 'free' tends to lose all value in the persons eyes.

Despite some snags and rough patches, working in this milieu has to me never been a dissatisfying experience and I have always had the feeling that good has been done.

A gratifying experience all round can only come from respect - respect to the tissues, to the patient, to the perioperative and support personnel and finally to yourself — your abilities and limitations. In the long run, respect begets respect — commanded, and not demanded.

**P.S.** This article is a mélange of my thoughts and experiences in working to bring the benefits of Plastic surgery to deserving people and often in difficult conditions. Comments and criticisms will be gladly received.

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*May our eyes see, though our hearts, break.  
May our hearts break, that they may open.  
May our hearts bleed, that we know,  
live flows through them.*

## **IFRS Section**

### ***Non-operative Fracture treatment — A Forgotten Option?***

**Dr. Gabriele Holoch MD, MOS, FARSI**

As I grew up as a child in an industrialized and very rich country I never realized that there could occur situations of lack of material or lack of any resources people need to live and to work with.

So when I started working as a doctor in 1986, I learned in my surgical training that most of the fractures of the extremities have to be operated with open reduction and internal fixation — based on the principles worked out by the "AO" (Association of Osteosynthesis, Switzerland).

But unfortunately, infection rate, number of non-healing cases like pseudarthrosis seemed to become a well known but unavoidable side-effects of some of these procedures. The postoperative osteomyelitis became more and more problematic. Specialized departments grew up just to treat those poor patients who lost much time of their active live with big social problems in their families and their jobs caused by their osteomyelitis.

No wonder that sometimes ironically it was heard that there were three peaks of osteomyelitis: The First World War, the Second World War and the time of the AO...

Only in 1990 when I started to work in Brazil without the possibilities of an operative fracture treatment, I had the opportunity to learn that many of the bone fractures are able to heal without any operation due to excellent natural patho-physiological possibilities to create new bone from the callus.

In such cases one has only to give this natural potential the right direction to heal, to treat the patients' pain and to walk along

with him to make sure that the treatment is properly done. Because, an inadequate treatment can be worse than no treatment.

Looking around for more information about closed functional treatment of fractures, I found the very interesting and thoroughly researched book of Dr. Augusto Sarmiento, Los Angeles, edited in 1981 and in Germany 1984<sup>1</sup>.

The author found that extensive immobilization of joints near a fracture inhibits the fracture healing and that there is no need of close contact of fractures ends to create a sufficient callus. So the main principle is Stabilization instead of Immobilization. Stabilization is to reduce the pain and to keep the fracture in a reasonable position to avoid crude dislocation. This is the main difference to traditional conservative treatment with immobilization of the neighboring joints.

He also found that the majority of fractures of the diaphysis and metaphysis of the extremity skeleton can be successfully treated with non operative functional splint therapy. In more than 2000 treated cases he observed a pseudarthrosis rate under 1%.

With the renouncement of an anatomical reduction in the X-ray the patient reaches an early function of his limb without the risk of an operation. So he asks for "treating the patient instead of operating X-rays".

To realize this result he developed with his working group the SARMIENTO BRACE:

The hematoma and the soft tissue around the fractured bone (muscle, subcutaneous

tissue, and skin) are used to stabilize the fracture after closed reduction. So there is some movement between the fractures ends that creates a strong callus reaction. By keeping the joints free, the blood flow around the fracture increases and avoids muscular atrophy, which has a positive influence on fracture healing, and the strong muscle keeps the reduction in position.

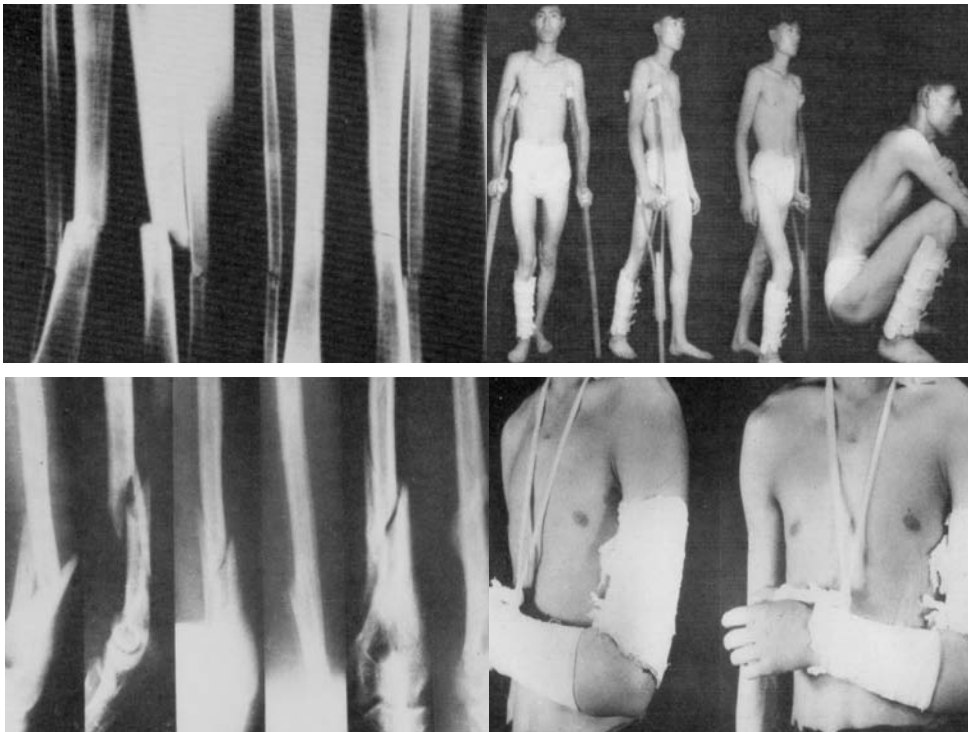
As the hematoma and the edema will be absorbed the brace has to be readjusted every few days to keep its stabilizing function continue. That means that the treating doctor has to follow up closely the patients treatment and the patient himself has to be cooperative.

Nearly at the same time, in 1982, an Austrian colleague too faced the similar problems coming along with osteomyelitis in operative fracture treatment. Annoyed by the

fact that the symposium of the Austrian trauma society in 1980 only discussed the problems of postoperative osteomyelitis, he reported about his experience in a Chinese hospital, in Tien Jing, specialized in Chinese conservative fracture treatment. In a booklet (2) he reported that there he met doctors with excellent skills for closed reduction and he saw a stabilization system without immobilization of the neighboring joints with special splints and clothes, using the soft tissue to stabilize the fracture.

So obviously the principles of Chinese traditional fracture treatment follow the same considerations as the Sarmiento bracing:

- ◆ The combination of stabilization and movement and keeping the joints free
- ◆ Close cooperation between medical treatment and patient's activity



Chinese conservative fracture treatment



- ◆ Doctor's ability for closed reduction and fundamental knowledge of the principles of functional treatment.

The indication for this treatment has to be chosen properly:

**The main indications are:**

- Humerus shaft fracture
- Tibia shaft fracture

**Limitations:**

- ◆ The fracture should not involve a dislocated joint fracture
- ◆ Proximal femur fracture is not suitable because of its strong varus dislocation
- ◆ The patient has to be cooperative
- ◆ Patients with polyneuropathia (i.e. diabetes) are not suitable because they do not feel the pressure of the brace and there remain the risk of skin lesions.

**How to go on:**

*First Step:* Patient with acute fracture will be reduced and immobilized for some days in a plaster of paris, just to treat the pain.

The pain will give us the feedback how long we have to wait with bracing.

*Second Step:* Place the half pipe Sarmiento brace quite narrow, two helping persons keeping the fracture reduced.

*Third Step:* Readjust the fitting of the brace every two-three days. Check for any neurological problem and the blood flow distal to the brace.

In our hospital we use Sarmiento bracing quite often especially in humerus shaft fractures.

To conclude, I want to point out that while training the doctors who work under resource constraint in remote areas the orthopedic surgeon should have the responsibility to elaborate more and emphasize on the scope of non operative fracture treatment, its limitation, so that they learn more about closed procedures. Cases are to be operated only when are to be operated.

Sometimes it needs much more courage to choose a non-operative treatment in adults — especially in our high-tech setups — than to bring the patient to the theatre and to operate his fracture.

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- 1) A. Sarmiento, L.L.Latta "Closed functional treatment of fractures", Springer-Verlag Berlin Heidelberg 1981
- 2) W. Krösl, Alexander Chao-Lai Meng "Die konservative chinesische Frakturbehandlung", Ferdinand Enke-Verlag 1982

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## IFRS Brochure for 2nd international conference of rural surgery

### THE 2<sup>nd</sup> CONFERENCE OF INTERNATIONAL FEDERATION OF RURAL SURGERY

#### THEME

"Challenges of practicing surgery in rural areas"

27–29 September 2007

#### Final Announcement and call for Abstracts and full Papers/Posters

#### VENUE

Tanzania Training Centre for International Health, Ifakara, TANZANIA

#### INVITATION

The International Confederation of Rural Surgeons will be holding its 2nd International Conference at the St. Francis Designated District Hospital.

The conference opens on Thursday, September 27, 2007 at 08.30 am and close on Saturday, September 29, 2007 at 5.00 pm.

#### Who

All world bodies and Individuals who promote rural health, especially surgery.

#### Theme

"Challenges of practicing surgery in rural areas"

The Scientific Program will accommodate broadly the theme above. However, the time-line will include plenary sessions of state of art presentations on various sub-themes.

Call for Abstracts and Posters and Guideline for Authors

1. English is the working language of the conference. All oral presentations will be made in English. Oral presentations will be 15 minutes including a 5 minutes discussion and questions at the end of each session. Posters will be displayed during the entire meeting. The area available for a poster will be 60 x 100 cm.
2. Abstracts should include title, which must be brief, name(s) of the author(s), and detailed address, body of abstract must include background, objectives, summary of research methodology, results and conclusions/ recommendations. The deadline for submission of abstract is 30th June 2007.  
Abstracts not received by this date will not be included in the abstract book and may not be considered for oral/poster presentation. Decision of the Organizing Committee will be communicated to the authors by 31st July 2007.
3. Full papers/posters should be submitted electronically as attachments to the Organizing Committee by 31st July 2007 by email: [plkibatata@yahoo.co.uk](mailto:plkibatata@yahoo.co.uk)  
Regulations and Instructions (applies to both Oral Abstracts and Posters)
4. All abstracts are blinded upon receipt at SFDDH prior to review and evaluation by the Scientific Committee.
5. Accepted abstracts will be presented during the Rural Surgery Conference program, September 2007, in Ifakara, Tanzania.
6. All oral abstract presentations must be developed and delivered in an electronic format, such as Microsoft Power Point. The conference will provide the proper audio/visual equipment for computer presentations (PC with appropriate software, LCD data projector, etc.)

#### Workshops

The following workshops have been proposed and scheduled for the first day and half of the second day.

- ◆ Ultrasound
- ◆ Surgical Skills
- ◆ Anaesthesia
- ◆ Bone treatment
- ◆ Care of wounds
- ◆ Hand Surgery

### Visa

Anybody needing a letter of Invitation for obtaining a Visa please inform us.

Brochure

### PRE-REGISTRATION FORM

Please provide the information requested below:

Family name.....

First Name .....

Title (Prof/Dr/Mr/Mrs/  
Ms/Mrs).....

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Participation plan (tick)

- Paper presentation
- Poster presentation
- No presentation
- Exhibition

Date .....

Signature.....

Return this form to:

**Dr. Patience Kibatata**

Chairman, Organizing Committee

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Further information can also be obtained from  
Website.....

### IMPORTANT MILESTONES

Ist Announcement and call for abstracts .....  
.....31st May 2006

Final Announcement .....  
.... 30th September 2006

Deadline for receiving abstracts .....  
..... 30th June 2007

Deadline for receiving full papers .....  
..... 31st July 2007

Conference date .....  
..... 27–29 September 2007

### REGISTRATION

Conference registration fee ..... \$ 50

Conference workshops ..... \$ 10

Annual Dinner ..... \$ 10

Accompanying guest ..... \$ 20

Can be payable at conference time or contact  
plkibatata@yahoo.co.uk

### TRAVEL AND ACCOMODATION

Travel from city of Tanzania and back to Dar Es Salaam , the International airport and largest Ifakara has been arranged and will be covered by the organizers.

Accommodation has been organized and will cost 20 - 30 \$ (bed and breakfast).

### ACCOMPANYING PERSONS PROGRAM

For accompanying guests who may not wish to attend the conference, a separate program has been arranged to visit Udzungwa Mountains National Park etc. Travel - 15\$, Lunch pack - 5\$, Park fee (non-residents) - 3\$, (resident - 1000 Tshs). Total non-residents - 23\$, Residents - 20,000 Tshs.

**G&O for rural surgeons****Steps of caesarian section (based on evidence)****Dr. S. K. Baasu MD, FICS, FICOG, FARSI**

Caesarian section (C/S) is a common surgical procedure performed by many rural surgeons. In rural areas one of the reasons for higher incidence of maternal mortality and morbidity and neonatal death is due to lack of facility for C/S. A rural surgeon with his "multi-skilled" approach can save many precious lives by offering timely caesarian section when needed. By integrating his own clinical expertise with the best available external clinical evidence from systematic research, he can maintain a very high quality surgical standard and safety for the patient.

Evidence based medicine (EBM) has many advantages. It offers the surest and most objective way to determine and maintain consistently high quality and safety standards in medical practice. It can help speed up the process of transferring clinical research findings into practice. It has the potential to reduce health-care costs significantly<sup>1</sup>.

Following are some of the Evidence-based Recommendations for Key Steps in C/S.

**Left Lateral Tilt**

While doing C/S, usually a 10–15 degree leftward tilt is recommended to avoid vena caval compression by the gravid uterus. Cochrane Review concluded lateral tilt associated with fewer low Apgar scores, better pH and oxygen saturation<sup>2</sup>.

**Skin Cleansing**

A meta-analysis of several trials in nonpregnant women found no differences in wound infection with different types and times of scrubs.

Conclusion: The use of an iodine solution alone is considered reasonable<sup>3</sup>.

**Skin Incision — Transverse vs. Vertical**

There is fairly good evidence to support from two randomized trials that a transverse skin incision is associated with less postoperative pain and improved cosmetic effect<sup>4,5</sup>.

**Transverse Incisions - Pfannenstiel vs. Joel-Cohen**

Though a smaller study (n = 20) suggested that Joel-Cohen incision was associated with significantly shorter operating times, reduced blood loss and less postoperative discomfort<sup>6</sup>, the larger (n = 310) and better designed trial<sup>7</sup> revealed no differences in total operative time (32 vs. 33 minutes), intra- and postoperative complications and neonatal outcomes.

**Subcutaneous Incision Scalpel vs. Blunt dissection**

It has not been studied separately in a trial. However, most clinicians open bluntly from medial to lateral to avoid injury to tissue and the inferior epigastric vessels. Blunt dissection is also associated with shorter operating times. In the same way, though.

**Fascial Incision** also has not been studied separately in a trial, most experts recommend a transverse incision with the scalpel and extended laterally with scissors<sup>8</sup>.

**Rectus Muscle: Pfannenstiel vs. Maylard**

3 trials (n = 313) randomly assigned to either Maylard (cutting) or Pfannenstiel (splitting) techniques found. No difference in operative morbidity, difficult deliveries, postoperative complications and pain scores. One study has also showed that abdominal muscle strength at 3 months was similar, with a trend for better



strength in the Pfannenstiel group. However Rectus muscle cutting is probably not necessary<sup>9, 10, 11</sup>.

### Opening the Peritoneum

Though it has not been studied separately in a trial, the peritoneum is usually opened with blunt or sharp dissection, followed by blunt expansion. It should be done carefully and high above the bladder to avoid injury to the organs below.

### Bladder Flap Development

Only 1 trial (n = 102) was randomly assigned to both incision and opening of the bladder flap or direct incision 1cm above the bladder fold. Opening the bladder flap was associated with longer incision to delivery interval (7 vs. 5 min P <.001), longer total operating time (40 vs. 35 min P = .004), greater change in hemoglobin level (1 vs. 0.5g/dL P = .009), more postoperative microhematuria (47% vs. 21% P <.01), and greater need for analgesia on POD (#2 55% vs. 26% P = .006)<sup>12</sup>.

### Uterine Incision Type

#### Expansion of Uterine Incision Bluntly (with fingers) vs. Sharp (by scissors)

Recent randomized larger trial compared 470 sharp and 475 blunt incisions. There was fairly good evidence to show that sharp uterine expansion was associated with increased estimated blood loss, PPH, need for transfusion and more number of extension. On the contrary blunt expansion was quicker with less risk of inadvertently cutting the neonate or cord. Hence blunt expansion is preferred to sharp expansion<sup>13</sup>.

#### Placental Removal Spontaneous (with gentle cord traction) vs. manual removal

Out of 6 randomized trials (>1700 women), 3 trials (n=223) were summarized in a Cochrane review. Based on the analysis of review result manual removal was found to be associated with a clinically important and statistically

significant increase in maternal blood loss {Mean 436.35ml, (95% CI 347.82–524.90)}, Increased postop endometritis {5.44, (95% CI 1.25–23.75)}, increase in fetal-maternal hemorrhage (trend) {OR 2.19, (95% CI 0.69–6.93)}<sup>2</sup>

It was hypothesized that blood loss is increased in manual removal because dilated sinuses in the uterine wall are not closed yet. Bacterial contamination of the lower uterine

segment and incision may be transferred to the upper segment in manual removal.

Conclusion: Spontaneous placental removal should be preferred to manual removal

#### Uterine exteriorization vs. intra-abdominal uterine incision repair

6 randomized trials (n = 1221) was summarized in a Cochrane Review. There are no statistically significant differences in most of the outcomes. Extra-abdominal closure of the uterine incision was associated with lower febrile morbidity for >3days RR 0.41, (95% CI 0.17–0.97)<sup>14</sup>.

Conclusion: The balance of the benefits and harms is too close to justify a general recommendation.

#### Peritoneal closure vs. nonclosure

Evidences from 9 trials (n =1811) were summarized in a Cochrane Review<sup>15</sup>. Non-closure of the peritoneum significantly reduced

- ◆ Operating time –7.33 min, 95% CI –8.43 to –6.24
- ◆ Postoperative fever
- ◆ Hospital stay

Though 1 trial (7 yr follow-up)<sup>16</sup> showed no differences in pain, fertility, urinary symptoms, and adhesions. A recent review (with Surg. and GYN data)<sup>17</sup> encouraged nonclosure of both the parietal and visceral peritoneum.

Conclusion: Nonclosure of the peritoneum is strongly recommended with good evidence of support.

### Closure of Uterine Incision Single vs. Double layer of suture

2 trials (n = 1006) were summarized in a Cochrane Review. Larger trial (n = 906)<sup>18</sup> found single closure was associated with decrease in operating time [5.6 min (P = .0001)]

However there was no difference in blood loss, need for transfusion and endometritis<sup>19</sup>

The smaller study found a lower incidence of abnormal scar for the single-layer during

Hysterography at the 3-months [26% vs. 88%; RR, 0.30, (95% CI, 0.18–0.48)]<sup>20</sup> 145/906 women who experienced subsequent labor were followed. 1 of 70 (1-layer) vs. 0 of 75 (2-layer group) had dehiscence. None of the women had uterine rupture. As the number was too small to detect a significant difference in these rare long-term outcomes, no recommendation for and against could be made for Risk of Rupture<sup>21</sup>.

### Reapproximation of Rectus

There is insufficient evidence to recommend against and for as this procedure has not been studied in any trial. We know that muscles always tend to find their right anatomic location. Suturing can cause unnecessary pain when the woman starts to move after surgery.

### Skin Closure — Staples vs. Subcuticular suture

One randomized trial<sup>22</sup> was reported in a Cochrane Review. 66 women with Pfannenstiel incision were randomized to either staples or 4–0 Vicryl subcuticular suture. Skin closure with staples were associated with a) decreased operative time (<1 vs. 10 min; P <.001),

b) Increased number of pain pills in the hospital (24.6 vs. 19.7; P = .008), and c) Increased pain scale at hospital discharge (6.6 vs. 5.1; P = .003). Subcuticular closure was more cosmetically attractive by both patients (P = .04) and physicians (P = .01) at the 6-week visit<sup>23</sup>.

However it has to be remembered that C/S is considered a clean-contaminated procedure with a relatively high risk of wound infection. Therefore continuous method closure does not allow selective wound opening in cases of infection or collection.

### Prophylactic Antibiotics use

No other aspect of C/S has been studied as much as the use of antibiotic in C/S (> 81 randomized trials). The Cochrane Review<sup>24</sup> shows benefit in both elective and non-elective C/S. Prophylactic antibiotic is associated with decreased endometritis (>60%) in both non elective and elective C/S and decreased wound infection in non elective (65%) and elective cases (25%).

51 trials have evaluated the appropriate antibiotic. Efficacy of ampicillin was found to be equivalent to first generation cephalosporin. Later-generation, more expensive cephalosporin do not improve efficacy OR 1.21, 95% CI 0.97-1.51<sup>25</sup>.

### Some of the good quality evidence favors

- ◆ Prophylactic antibiotics (ampicillin or 1st generation
- ◆ Cephalosporin X 1 dose)
- ◆ Blunt uterine incision expansion
- ◆ Spontaneous placental removal
- ◆ Nonclosure of both visceral and parietal Peritoneum
- ◆ Suture closure or drain of subcutaneous tissue >2 cm thick

### Conclusion

Incidence of Caesarean section is expected to increase. As it is a commonly performed

procedure, it is necessary to adhere to the evidence based techniques that is safest both for the mother and child. Evidence based techniques help to reduce the complications and improve the out come.

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Many minor aspects of steps of C/S have not been incorporated in this article due to lack of space. Readers are welcome to seek for any clarification. - Editor

*We often do not take advantage of all the knowledge that is already available*  
 - Graham, Lancet 2002; 359:701-4

## **A "Do it yourself" method for Removal of Urinary Stones!**

**Dr. R.D.Prabhu FRCS, FARSI**

The other day I had a patient with typical ureteric colic with a 'loin to groin' pain that made him roll about, vomiting and even dysuria. He required repeated I/V antispasmodic injection like anafortan for the relief of the pain. The pain did not subside even after 24 hours when, to satisfy him, I sent him to an Urologist for a second opinion. The patient came back with the following list:

1. Urine examination
2. Urine culture and sensitivity,
3. Ultrasound examination
4. X-ray of abdomen
5. Blood Urea and Serum Creatinine
6. Hb, TC-DC ESR. and
7. Prescription of an antibiotic.

By the time patient went around for these, his pain had just disappeared!

What is surprising is the fact that a ureteric colic, which is such a common complaint in any general practice, attracts so many mandatory tests at the very beginning itself and even an irrational (according to me) prescription of antibiotic. All these tests and antibiotic involve so much money that many patients can ill afford but justified by the practitioners on the grounds of proper academic practice and of course the ever bothering Consumer Protection Act. If it is truly as per the academic teaching in our colleges, then the belief of ARSI that rural surgeons need to be reoriented to the realities of rural economy gets further support. Unscrupulous practitioner may even order for CT scan saying "some stones are not visible on radiogram, and some are so small that they cannot be visualised on ultrasound scan". The real motive of course is known to all.

I am an old timer by now. Our teachings were very different and depended more on clinical decisions. When I started practice in Shimoga in 1970, we did not have the CPA, the kick-backs (though that would not have made any difference to me then as it is now) nor the availability of so many investigative facilities. We had to diagnose on clinical grounds and some times examine urine, centrifuged on hand operated machine! Of course it would have been convenient to have investigative facilities in some cases. That we have to move with the times I will not deny; but it is difficult to give up the 'old' values respected by us as also to accept what appears to be unreasonable 'modern-ness'.

Some patients are and were so poor that they can (could) not afford even the medicine we prescribe (d), leave alone going away for investigations or specialist's care. One such patient has stuck in my mind for all these 33 odd years, and he is still alive. He was a teen aged boy then, very poor, and of sickly health. To top it all he had a calculus stuck in the external urethral meatus. He had difficulty emptying his urinary bladder every time, having to strain very hard to drive the urine out along the sides of the stone and he had continuous pain. The tip of the calculus could be seen but it was not possible to grasp the calculus to pull it out. General Anaesthesia would have been ideal to try and negotiate the calculus out; but we did not have any anaesthetist in town then. I could have given a local anaesthetic injection to make a small slit in the glans to extricate the stone. But he plainly refused any sort of interference. Besides, the boy was so poor that he could not have even afforded the medicines that were going to be necessary after that surgery. So in desperation I advised him a very unorthodox treatment that one cannot find in

any surgical book and which would not cost him anything either. I asked him to climb up a stool and jump down and to go on doing so, many times a day. I also wrote down a prescription for a few analgesic tablets. If any one hearing me at the time concluded that I was out of mind I would not have been surprised, but I could not think of any other method to help him get relief.

To my utter surprise he came to me two days later to show the calculus that fell down during one of his jumps! I laughed loudly and the boy could not understand why. Now it is perhaps the turn of the readers also to laugh at this madness. No, I did not shout "Eureka" and streak. It could have been a coincidence, but I have not given up my belief that the jumps might have dislodged the stone in this boy.

Two to three years later, a general medical practitioner's son from a town some 100 kilometres away came for consultation. He was intelligent and very level headed. He had abdominal pain due to a calculus in his left ureter. It was visible on the X-Ray of abdomen that he had brought. After examining him and the X-Ray I told him that the stone is small and is likely to pass out by itself. He said that he has waited for over two to three weeks and there was no change in the pain, neither of the level of pain nor in the frequency of the pain. I told him to drink plenty of water every day and hope to wash down the calculus.

"Is there any other method to hurry up the process" he asked. I told him that I know of a very crazy method, which is not in any medical books. He may try it out but I could

not promise him of quick or any results. He agreed and I told him the story of the boy and the jump from the stool. He was amused but felt that there is some sense in the method. After all, do we not use similar manoeuvres to dislodge objects stuck up in tubular passages. He asked if he could ride a bicycle daily to and from his workshop. I told him that he certainly could and also asked him to ride the bicycle through the potholes of the road so that he will get jolts so very often. He went home brooding over my suggestion. I would not be surprised if he felt a bit foolish about all this experimentation; but then, it would not cost him anything either if he were to try.

However, a week later he rang me up to inform me that during one of the rides over a pothole he felt sudden pain in the abdomen and the next day he passed the stone out in the urine! Could this be a coincidence too!

My own colleagues who heard about the incidence were sceptic about it and so I hesitated to advise this method to every patient that came to me with ureteric calculus. But I did advise a few that wished to know of it. But sadly, none have come to back to report the results. There are no double blinded, multicentric trials involving large number of patients for this crude theory of mine and so I do not venture to say that this is a method for universal prescription. Both the examples could be absolute coincidences, or the frequently used expression "placebo effects". However, can any one say with confidence that the mechanical jerks could not have moved the stone down wards?

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*Each day, each moment is a step into the unknown. How can you feel anything but amazement.*

## 2nd International Federation of Rural Surgery (IFRS) Conference

September 27<sup>th</sup> to 29<sup>th</sup>, 2007

St Francis Designated District Hospital, IFAKARA, TANZANIA

**Theme: Challenges of practicing surgery in rural areas**

### TENTATIVE SCIENTIFIC PROGRAM

<b>DAY 1 – THURSDAY, SEPTEMBER 27<sup>th</sup>, 2007</b>	
12.00 noon – 05: 00 pm 05:00 pm – 09:00 pm 06:00 pm 07:30 pm	Arrivals. Registration at St. Francis Designated District Hospital meeting Hall. Core Committee Meeting the IFRS officials. Formal reception and Dinner — St. Francis Designated District Hospital meeting Hall.
<b>DAY 2 – FRIDAY, SEPTEMBER 27<sup>th</sup>, 2007</b>	
08:30 am – 09:15 am  09:15 am – 10:30 am 10.30 am – 11.00 am 11.00 am – 1.00 pm 01.00 pm – 02.00 pm 02.00 pm – 5.30 pm 07.00 pm – 09.00 pm	WELCOME - Chairman Core committee - President IFRS - Ministry Official <b>PARRALLEL SESSION WORKSHOPS</b> Tea Break WORKSHOPS CONTINUE Lunch Break WORKSHOPS CONTINUE VICE PRESIDENT DINNER
<b>DAY 3 – SATURDAY, SEPTEMBER 28<sup>th</sup>, 2007</b>	
08.30 am – 10.30 am 10.30 am – 11.00 am 11:00 am – 12.00 noon 12:30 pm – 01:30 pm 01:30 pm – 02:30 pm 09:00 pm – 05:30 pm 04:00 pm – 04:30 pm 05: 45 pm – 01:30 pm 08:00 pm	WORKSHOPS CONTINUE Tea Break WORKSHOPS CONTINUE Official Opening (Guest of Honour) Lunch Parallel Scientific sessions. Every 15 minutes a paper is presented. Tea Mid afternoon River sitting PRESIDENTS DINNER
<b>DAY 4 – SUNDAY SEPTEMBER 29<sup>th</sup>, 2007</b>	
08:30 am – 10:30 am 10:30 am – 11:00 am 11:00 am – 1:00 pm 01:00 pm – 02:00 pm 08:00 pm – 05:30 pm  03:30 pm – 05:30 pm 01:00 pm – 10.00 pm	Parallel Scientific sessions continues Tea Break Parallel Scientific sessions continues Lunch Break Scientific sessions parallel continues with a Tea Break at 3.00 pm - 3:30 pm Summaries and Conclusion Annual Dinner and Dance
<b>DAY 5 – MONDAY SEPTEMBER 30<sup>th</sup>, 2007</b>	
09: 00 AM 10:00 am	Core Committee and IFRS final meeting Departures





## **Dr. Antia- Finseth INNOVATION AWARD- 2007**



Association of Rural Surgeons of India offers Antia- Finseth Innovation award of Rs. 10,000/- for any innovation that is useful for rural health care. Innovation may be equipment, procedure or even a concept. Innovator may be medical, paramedical or non-medical person. Apply about the innovation with following details:

1. Brief abstract of the innovation (About 300 words)
  2. Novel features of the innovation
  3. Advantage over the known alternatives
  4. Detailed description accompanied by diagrams, drawings, photographs neatly labeled
  5. Complete bio-data of the innovator along with photograph
- One copy of the application has to be sent to Hon. Secretary and Chairman Award Committee each

### **Terms and conditions:**

1. Awardee has to present his work at the annual conference of ARSI and receive award
2. Award will not be given in absentia.
3. Decision of the selection committee shall be final

**Last date of submission of application  
for the award is 31st July 2007**

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