

President speaks...

Dear fellow rural surgeon,

I take this opportunity to inform you that ARSI is progressing satisfactorily but would appreciate if all the members take active interest in it. I therefore, appeal to you to involve yourself a little more in the ARSI activities. We are only about 400 members in ARSI. But that is not important at all; if all those 400 members are devoted to rural surgery and take active part in all the activities and programmes of ARSI, we could be stronger and more vibrant than most of the associations around us. The office bearers and governing council members do their bit sincerely; but that could be even better if each of you join hands with them. We want to know about your practice, the problems you face and your suggestions as how they could be solved. We also want your opinions on what we plan and propose in bulletin and in the conferences. Only then we can achieve much more in shorter time and only then we can project a comprehensive picture of rural surgery in India.

Next annual conference is scheduled at **Ujjain, MP on 23-25 September 2005**. This conference is particularly important in many ways:

1. It will be an election meeting when you all will have to elect new governing council and office bearers. Start looking out for capable leaders who may take our association to newer heights.
2. It is the first **International Conference of Rural Surgery**. We expect participation of African, European, American and hopefully neighboring country surgeons and surgical societies.
3. We propose to launch **International Federation of Rural Surgery** during this meeting. You will get the proposed draft of Constitution, Rules and regulations of this. Please study them carefully and suggest corrections, additions etc.
4. ASRI, rural surgery section of ASI will have its mid-term meeting with us at Ujjain and it will be a good opportunity to meet our colleagues during this conference.

We are trying to form a data base on the nursing homes and small hospitals of our members. It will give us some idea about the minimum in the requirements that are adequate to offer safe, affordable, and good surgical and medical care in the rural places. You will receive a questionnaire from the secretary about this. I make a special plea to each one of you to take some time to fill in as much of the information as possible and send it back please. You **need not sign it**; and we promise to keep your information a secret. But it will help us a great deal in presenting our case to the government against the proposed bills on medical establishments wherein they are likely to enforce standards from big and corporate hospitals for all the small and medium establishments in the country. Your help and information is therefore, very important.

Finally, please promote ARSI where ever you go and whenever you get a chance to. I am convinced that rural surgery as proposed by us is the most practical, economical, rural health care one can offer near to the home of the rural patients in rural India.

Sincerely
Dr. R.D. Prabhu
President

Editorial

"Rural Surgery" - Must survive for people's benefit

Dr. J. K. Banerjee

Dear Readers,

On the sidelines of the 12th national conference of rural surgery, some of our ARSI members met and decided to define and set guidelines of a rural hospital in the Indian context.

Every state is enacting legislations for private nursing homes and clinical establishments. The rural hospitals, which are run with limited resources by qualified doctors, are finding it increasingly difficult to meet the requirements of these legislations and are being threatened with closure. Dr. Sitanath De's article in this issue is a point to this. Qualified nurses, costly equipment like pulse oximeters and defibrillators are being made mandatory for these hospitals at the behest of the city corporate hospitals and glasshouse professors who often thrive on various forms of bribes from the healthcare industry.

We rural surgeons perform what WHO recommends as "essential surgical care" including life saving emergencies, and refer complicated problems to tertiary care hospitals. By experience we find that simple equipment, clean atmosphere, clean water supply, etc. and paramedical personnel trained up by us meets the requirements of such practising surgeons working in rural hospitals. It also cuts down the cost of care in these institutions, which makes basic care accessible to the rural poor. As such even today 400 million people in our country have no access to basic surgical care.

The bed strength of our nation is 0.6 beds per thousand populations while the WHO recommendation is 4 beds per thousand.

These legislations are strangling whatever meagre lifesaving resources have been made available in the countryside for the poor by the voluntary efforts of rural surgeons. It has also become a deterrent to younger surgeons to start practice in the countryside.

Our organization is now 12yrs. old with around 400 qualified surgeons, gynaecologists, orthopedics, and anaesthetists etc. as members. We have network quite well and have also helped IGNOU to prepare study material for the future rural surgeons working with limited resources. I feel that it is high time that we setup guidelines of a standard rural hospital of our country. What minimum facilities should be available in a rural hospital to start with, what minimum manpower etc.

Once these norms have been arrived at by consensus, we may accredit hospitals with such facilities and use them for training the future rural surgeons of India. We may also design a course (with MBBS as entry point) for them. We will of course have to write up a book of guidelines for rural surgical practice for the purpose and for which the CRS course material can be used.

Later on we may go to the Govt. / NHRC with a request to register rural hospitals in a separate category and not club them with city corporate hospitals as at present. If we are winning on the UDBT front, there is no reason why we should not expect to win here also.

Today the ARSI is emerging as a small but highly vibrant and potent organisation, actively working to make health and medical care available to the majority

population at their doorstep. The people are with us. And the scare of legal whip should not cow us down.

Dr. Tongaonkar is collecting data of present rural hospitals. We must meet to decide on this issue this year. In a Governing council meeting or a General Body meeting, time is too short for a brainstorming on this issue and arrives on some conclusion. We must have a separate meeting on this.

For this purpose, I feel that it would be better if we had meet at Ujjain one day earlier on the morning of 22nd sept. (the conference this year being on 23rd to 25th sept.) and discuss this issue during the day. The GC

meeting can be held as usual in the evening. This way we can have a much bigger participation. Those members who are interested could come one day earlier and we could request Prof. Mehta to give the participants of this meeting an extra lunch and charge for it separately.

Also, IGNOU is closing up the CRS course. The DNB has become a nonstarter. We as a voluntary organization will now have to rise to the occasion to have our own continuing education programme of rural surgery and leading to the FARSI by examination.

I would eagerly await your responses in this regard.

ARSI News

Members- for your kind attention

Please note:

- ◆ XIII National conference of ARSI and II joint conference of ASRI will be held at Ujjain from 23rd -25th of September, 2005
- ◆ This will also be an International conference of Rural Surgery.
- ◆ International Federation of Rural surgery will be launched in this conference
- ◆ Next AGBM during this conference will be an election meeting and members have to nominate suitable persons for the Governing Council.
- ◆ Members are requested to fill the questionnaire about the Nursing Home information that will be sent to you by the secretary, ARSI. Kindly bring it to the conference venue or send directly to secretary's office.

The Clinical Establishment Act: Its effects on the small- scale Rural Surgical Clinics and the state of Rural Health Care in India

Dr. Sitanath De. F.R.C.S, F.A.R.S.I

Introduction:

The Clinical Establishment Act (C.E.A) has a profound effect on rural health care as it has caused a tremendous escalation in the treatment cost for the rural people. The article focuses on the reason behind this. An argument is made in support of a review of the act, with particular reference to the needs of the rural area.

Key Words:

Clinical Establishment Act-C.E.A
Small-scale Rural Surgical and Maternity Clinic-S.S.R.S.M.C.

Definition of a Small- scale Rural Surgical and Maternity Clinic:

S.S.R.S.M.C. is typically a modest building providing 5-10 beds for in- patient care. It has usually been constructed or converted by the doctor-owner, possibly assisted by his wife or other family members. It is a common practice for the doctor to construct his clinic over a period of time, as funds permit, and usually the same building also has to serve as a residence for the doctor and his family. Frequently, the doctor resides on the first floor while reserving the ground floor for his clinic. Although such a building may not be of an ideal design, it has the advantage of enabling the doctor to be within reach of his patients at any time of the day or night. The costs of maintaining the establishment can be kept very low and care and cleanliness can be properly supervised at all times.

The aim of such a clinic is to provide adequate, efficient and economical surgical care to the rural patient, almost on his doorstep. At its best, such a clinic produces results, which compare very favorably with any district hospital. The clinic can be cost

effective, while charging the patients a minimum fee, by making use of local facilities as far as is practical. For example, a trained local general practitioner may be utilized to administer open ether anesthesia. The cost, and difficulty, of procuring Oxygen and Gas cylinders in a remote rural area is prohibitive and beyond the means of the average rural patient. Local, unemployed youths can be carefully trained to become competent nursing staff and paramedical workers. They are usually very sincere students and will gladly accept modest wages while they receive a training, which offers steady employment in their local area. A simple O-T. Unit can be achieved with no more than a wooden operating table covered with a suitable plastic material, with facilities for lithotomy position. The local carpenter can make this. The unit may contain a suction apparatus and a portable Boyle's apparatus and a single hanging, 500watt electric bulb. A further essential would be a large, 3-cell torch. The same carpenter could construct all furniture from locally available wood. Sterilization of the O.T. can be managed by formulisers and wooden beds can be exposed to strong sunshine after washing. Instruments can be effectively sterilized by boiling and all other materials can be autoclaved. Medical waste can be disposed off by outdoor incineration, and needles, syringes etc. can be disposed of according to the recommendations of the AIDS prevention society.

All basic general surgical, gynecological and obstetric operations (cold and emergencies) are routinely performed in such clinics. Usual orthopedic procedures like selected cases of closed reduction and plaster, traction, simple plaster with P.O.P on low- cost cotton bandage are also done.

It is estimated that at least 60% of the total operation load of a sub-division is undertaken by these small rural clinics. It is interesting to note that many cases referred to a higher centre by the Sub-Divisional hospital, find adequate treatment in these local clinics, either as in-patients or in the sizable out-patient clinics, a tremendous relief to the patients and their families. In the author's own area, there are seven such clinics around a 250-bedded sub-Divisional hospital. It is assumed that the scenario is similar in all sub-divisional areas!

The West Bengal Clinical Establishment Act (Amendment 2001)

(No. HF/O/MS/277/4c-21/96 PT-V

{{Calcutta, 30th May, 2001}}

There are at least 27 specific clauses in this act that has to be fulfilled before an application is considered for accreditation. Some of these are:

- ◆ Proof of ownership of the land
- ◆ Certified planning and construction approval from the municipality, or appropriate authority.
- ◆ Pollution-free certificate from pollution control board
- ◆ Biodata of resident doctor with official, detailed appointment letter.
- ◆ Biodata of other practicing doctors, with no objection certificate from current government employer.
- ◆ Biodata of qualified nurses, with proof of qualification.

If the accreditation committee is satisfied that all clauses have been fulfilled, it will pass the file to the licensing authority and a license will be issued for one year only. The entire performance has to be repeated every year. The procedure is arduous, time consuming and expensive, allowing for travels to a distant town and possibly a large bribe to ensure movement of the relevant file!

Moreover, the detailed clauses listing all essential commodities deemed necessary are totally unrealistic when applied to S.S.R.S.M.C. The size of the rooms, the space between bed, bath-rooms, water-closets, basins, sinks and dish-washers are all completely irrelevant in areas where running water, or even the power necessary to maintain a pump, are simply not available. There are 17 clauses relating to the fitting considered necessary in an O.T. These include shadow less operating lamps; a hydraulic operating table; Boyle's anesthetic machine; suction apparatus; oxygen and nitrous oxide cylinders in plenty; anesthetic equipment; pulse-oxymetre; E.C.G. monitor; respirator; defibrillator and diathermy machine. There must even be nurses changing room and rest room. The reality is that such provisions, while desirable, constitute a prohibitive investment for the doctor-owner, which he can never hope to recoup from his rural patients.

The Effect of C.E.A. on S.S.R.M. Clinics:

Some of the clinics have been closed, as the owner could not comply with the requirements. Some clinic owners are ignoring the Act and carrying on, providing an "illegal" service. Some owners have resorted to obtaining illegal licenses by bribery because they can find no way of complying with the requirements.

The C.E.A. has accomplished nothing at all and it has completely undermined our need-base, effective, existing rural surgical, maternity and orthopedic care system. Rather it is promoting a "Hi-Tech" system, which is quite impractical and unnecessary in managing rural health care. The idea that "a common minimum programme" would ensure the welfare of the rural patient is just a sad joke. The increased cost of medical care has only served to make even the most modest clinic

inaccessible to them and they have no other option but to surrender to the mercy of the village quacks.

The C.E.A. is directly responsible for the spiraling cost of establishing an S.S.R.S.M.C. putting such clinics beyond the reach of the average rural patient. The C.E.A has also opened the floodgate of corruption and bribery within the medical profession. The authorities appear to have turned a blind eye to this problem. They appear to be sluggish about implementing the act; maybe they also have reservations about its consequences.

Conclusion

The small-scale rural clinic could be compared with the small-scale industry in Japan, where small parts of a large project used to be made in each household. In this way Japan managed to develop the solid foundations of its modern industrial growth. Similarly, in India, 60% of the surgical maternity and orthopedic load in the rural area is undertaken by the S.S.C.S.M.C.s

which provides an invaluable service to about 750 million of the population. It seems quite unjustified to impose such heavy regulations on these clinics that they become extinct. The administration needs to consider how the inevitable void is to be filled up when these clinics cease to exist. The economical development of a country depends on strong foundations in the small-scale sector. The C.E.A is a badly thought out piece of legislation which has failed to take into consideration the growth of rural health care from its foundations in the S.S.R.S.M.C.

The author strongly urges the Government to review the C.E.A and to take a fresh look at the role-played by the small-scale rural surgical clinics in the development of rural health care in India. The government should nurse such clinics as a valuable and vital asset and learn from them in order to promote our own system of rural surgical care, which should be based on the actual needs of rural people and the facilities available in the rural areas of India.

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Editor's note: Privatizations of health care, water resources, among many others, are in the agenda of IMF and WTO. It is simply a waste of time to talk to the Govt. who has signed agreement with IMF and WTO. CEA and many such acts will be forged in future as an excuse to implement those agendas. One should not wonder if in the coming days more and more private health set up by foreign investors and industrial houses (to overuse the Hi-tech for the interest of multinationals as a part of loan and trade agreement) pop up every where in the country and replaces public health services to the majority. Rural surgeons have to stand against all these odds. It requires a trust in both ourselves and each other. It requires strength and resilience and ridiculous amount of hope. It may sound antithetical to much of the way of the world. But that is our true strength.

- Dr. S.K. Baasu

Surgical Site Infection in 2003 at St. Francis Designated District Hospital, Ifakara - A Tanzanian Rural District Hospital

Dr. Pascience Kibatata

[Abstract: Background: In Africa, there exist limited data on the incidence of Surgical Site Infections from Rural District Hospital. **Objective:** To survey the SSI incidence, risk factors and their involved micro-organism. **Methods:** Adult patients who underwent Surgical Intervention in SFDDH, Ifakara for five months in 2003 were prospectively daily assessed for related factors up to 30 days after discharge. Swabs for analysis were taken in suspected SSI cases. **Results:** A total of 613 patients with mean age 32 and 83% being female were recruited. Overall SSI was 24%. Of these, 38% were superficial infection, 47% were deep and 15% space or organ SSI. 2% of patients died of SSI. ASA score surgery duration were significant factors ($P < 0.01$). The most frequently isolated pathogen was staphylococcus aureus 37%, E. Coli 11% and enterococci in 5%. **Conclusion:** The incidence of SSI detected in this study was high. As expected, ASA score and duration of the surgery turned out to be strong risk factors for SSI. This is probably related to the limited resources in the Operating Theatre.

Key words: SFDDH (St. Francis Designated District Hospital); SSI (Surgical site infection); ASA (American Society of Anaesthesiologists)]

Background

St. Francis Designated District Hospital, which began 77 years ago as a small Dispensary by Sister of Baldegg of Swiss lie 450km south west of Dar es Salaam - our largest City of Tanzania.

It has been slowly growing because of community growth and service demand to the current 371 beds with the entire major disciplines vis-à-vis Medicine, Surgery, Pediatrics, Obs/Gynae. and Community Medicine. The Hospital has a Research and

Census of Kilombero District in brief

| | |
|---|----------------|
| Male Population | 162,214 |
| Female Population | 159,397 |
| Total Population | 321,611 |
| Annual average Intercensal Growth Rate 1988-2002 Censuses | 3.9% |
| Dependency Ratio | 78 |
| Literacy Rate, 5 Year and Above | 69% |
| Employment In: - | |
| - Agriculture | 81% |
| - Business Operations | 10% |
| - Office Work | 4% |
| - Elementary Occupations | 3% |

Training Medical School and has 400 personnel of different cadres and numbers.

It serves a population of 600,000 and represents a referral centre to all other Health Facilities within the Kilombero and Ulanga Districts.

The major diseases being treated include Malaria, Anaemia, Animal Injuries, Pneumonia and HIV/ AIDS related ones etc. It sees over 600 patients per day as out patient while it has an average daily bed occupancy rate of 110 per cent. Admitted patients live on an estimated daily income less than 1 US Dollar, mainly derived from Agriculture, Casual jobs and small trade.

In co-operation with the Basel Institute the Hospital Carried out a SSI study with the objective of surveying the incidence of SSI, Risk factors for developing SSI and the involved micro-organisms.

This study was performed in the department of General Surgery including Gynaecology and Obstetrics with 82-beds at SFDDH, Ifakara. The Department performs 155 surgical interventions a month in three open airflow operating rooms. Surgical instruments were proceeded by dry heat at 150°C for 60 minutes.

Methods

Patients were recruited including characteristics of gender, age, admission diagnosis, regularly taken medication, smoking and alcohol consumption.

Basic clinical assessments such as body mass index, body temperature, heart rate, blood pressure were taken. Data on Haemoglobin, white cell count, platelets, glucose and blood slide for plasmodium spp were done. No HIV testing was performed.

Patients' health status was described using ASA (American Society of Anaesthesiologists) score.

Intra operative data which include urgency, type and duration of intervention and anaesthesia type were recorded.

The wound classification, the type and time of administration of antimicrobial prophylaxis, the use of blood transfusion, implants and insertion of drains and urinary catheter were recorded.

Patients were seen daily post operatively and up to 30 days after discharge.

In case of suspected SSI, swabs were taken for analysis. SSI was characterized according to CDC criteria i.e. superficial, deep, organ or space.

The risk of SSI in relation to patient Characteristics was calculated by Person chi-square statistics while the time to SSI detection was by Kaplan method.

Results

618 eligible patients were included with mean age of 32 and 83% female patients. Obst. /Gynae Patients formed 75%. Anaemia was in 77% of patients and 16% had Plasmodium infection.

Congratulations!

Following articles published in "Rural Surgery" bulletin (Jan2004- Oct2004) have been adjudged jointly for the "Rural Medicare Society Award" by panel of judges.

- 1) **Where there is no anaesthetist: Caesarean section under local anaesthesia - An effective alternative** by Dr. N.S.Iyer, Dr.D.V.Mavalander, July Vol. 11 No.3
- 2) **Health care in Remote areas** - by Lalitha Regi & Regi M. George, July Vol. 11 No.3

The prize money of rupees 3000/ (rupees three thousand only) will be shared by the authors.

Table 1: Patients Characteristics

| | All (*) | SSI-cases# | Risk-ratio (95%CI) | P-Value± |
|-----------------------------------|-------------|-------------|--------------------|----------|
| Number of Patient | 613 (100%) | 144(24%) | | |
| Gender, female | 509 (83%) | 113 (22%) | 0.7 (0.5-1.0) | 0.1 |
| Age (mean, DS) | 32.0 (13.6) | 32.6 (13.8) | | |
| Admission Diagnosis | | | | |
| Obstetric/Gynaecological | 462 (75%) | 106 (23%) | 1.0+ | |
| Visceral (incl. Hernia) | 91 (15%) | 22 (24%) | 1.1 (0.7-1.6) | |
| Orthopaedic | 28 (5%) | 10 (36%) | 1.6 (0.9-2.7) | |
| Urological | 18 (3%) | 5 (28%) | 1.2 (0.6-2.6) | 0.4 |
| Dermatological/Angiological | 6 (1%) | 1 (17%) | 0.7 (0.1-4.4) | |
| Ear Nose Throat | 8 (1%) | 0 | 0 | |
| Preoperative Assessment | | | | |
| Body temp. > 37.5oC | 75 (13%) | 13(17%) | 0.7 (0.4-1.3) | 0.3 |
| Tachycardia | 24 (4%) | 9(38%) | 1.7 (1.0-2.9) | 0.1 |
| Hypertensive Blood Pressure | 159 (26%) | 39 (25%) | 1.1 (1.0-2.9) | 0.6 |
| Underweight (BM >18kg/m2) | 61 (11%) | 11 (18%) | 0.7 (0.4-1.4) | 0.9 |
| Obesity (BMI>25kg/m2) | 101 (18%) | 29 (29%) | 1.3 (0.9-1.9) | 0.1 |
| Anaemia (12/14mg/1) | 176(77%) | 44 (25%) | 0.9 (0.6-1.5) | 0.7 |
| Hyperglycaemia (gluc. >6.4mmol/1) | 72 (15%) | 21 (29%) | 1.3 (0.9-2.0) | 0.2 |
| Plasmodium; n>0 | 40 (9%) | 13 (33%) | 1.4 (0.9-2.2) | 0.2 |
| ASA 1 | 463 (76%) | 94 (20%) | 1.0+ | |
| ASA 2 | 80 (13%) | 25 (32%) | 1.5(1.1-2.2) | |
| ASA 3 | 45 (7%) | 16 (36%) | 1.8(1.1-2.7) | 0.006 |
| ASA 4 | 22 (4%) | 9 (41%) | 2.0 (1.2-3.4) | |
| ASA 5 | 0 | 0 | - | |

* Percentage of the assessed patient.

% indicates the percentage of those patients with the risk factor, who had SSI.

+ P-Values from the contingency table chi-square (single variable) analyses.

+ Reference Category.

Table 2: Surgical intervention and perioperative management

| | All | SSI-cases | Risk-ratio (95%CI) | P-Value |
|---------------------------------|----------|-----------|--------------------|---------|
| Number of Patients | 613 (%) | 144 (24%) | | |
| Surgical intervention | | | | |
| Emergencies | 354 (61) | 86 (24) | 1.1 (0.7-1.3) | 0.7 |
| Caesarean section | 362 (59) | 87 (24) | 1.0+ | |
| Hysterectomy | 28 (4) | 10(36) | 1.5 (0.9 - 2.5) | |
| Laparotomy | 46 (8) | 10 (22) | 0.9 (0.5 - 1.6) | |
| Hernia | 43 (7) | 4 (9) | 0.4 (0.2 - 1.0) | 0.009 |
| Hydrocele | 24 (4) | 11 (46) | 1.9 (1.2 - 3.1) | |
| Orthopedic intervention | 20 (3) | 6 (30) | 1.3 (0.6-2.5) | |
| Other | 90 (15) | 16 (18) | 0.7 (0.5 -1.2) | |
| Wound Classification | | | | |
| Clean | 123 (20) | 21 (17) | 1.0+ | |
| Clean-contaminated | 404 (66) | 93 (23) | 1.4 (0.9,2.1) | |
| Dirty | 69 (11) | 22 (32) | 1.9 (1.13.1) | |
| Dirty-infected | 17 (3) | 8 (47) | 2.8 (1.5 - 5.2) | |
| Perioperative management | | | | |
| General Anaesthesia | 208 (34) | 58 (28) | 1.3 (1.0 - 1.8) | 0.06 |
| Intensive Care Unit | 94(15) | 29 (31) | 1.4 (1.0 - 2.0) | 0.06 |
| Blood Transfusion | 42(7) | 15 (36) | 1.5 (1.0 - 2.3) | 0.08 |
| Urinary Catheter | 475 (79) | 118 (25) | 1.3 (0.9 - 2.0) | 0.14 |

* Percentage of the assessed patients

+ Reference Category

Table 3: T-times and risk of infection

| | Time (minutes) Median | <75 - percentile 75 - Percentile | All cases | SSI- cases | >75-Percentile | SSI-cases (%) |
|------------------------------|--------------------------|-------------------------------------|-----------|------------|----------------|---------------|
| Caesarean section | 30 | 35 | 266 | 56 (21) | 88 | 29 (33) |
| Hysterectomy | 32 | 42 | 22 | 7 (32) | 7 | 3 (43) |
| Laparotomy | 30 | 40 | 39 | 5 (14) | 9 | 4 (44) |
| Hernia* | 19 | 29 | 28 | 3 (11) | 9 | 0 |
| Hydrocele* | 19 | 30 | 14 | 8 (57) | 7 | 2 (50) |
| Orthopaedic Interventions | 30 | 40 | 16 | 4 (25) | 3 | 2 (67) |
| All | 28 | 35 | 459 | 95 (21) | 137 | 44 (32) |

* Excluding 6 patients with both hernia and hydrocele operations of whom only one had an SSI. Patients whose operations lasted more than the 75th percentile of distribution of times for the intervention had a relative risk of 1.6 for SSI (95 % CI 1.2-2.0; chi-square=9.7, p=0.002).

Table 4: Antimicrobial resistance* of bacteria isolated from the surgical site

| | Staph Aureus | Enterco- coccus Ssp. | E.coli | Proteus Ssp. | Klebsiella Ssp. | Entero Bacteria ccae | Pseudo- monas Aeru- ginus | Acineto- bacter | No. Clinical Signifi- cant germ |
|-----------------|-----------------|-------------------------|---------|-----------------|--------------------|----------------------------|------------------------------------|--------------------|--|
| N (%) | 48(37) | 7 (5) | 15(11) | 4 (3) | 7 (5) | 2 (1) | 3 (2) | 2 (1) | 47 (35) |
| Penicillin | 46(95) | - | - | - | - | - | - | - | - |
| Ciproxin | 9 (19) | - | 1 (7) | 0 | 0 | 0 | 0 | 0 | - |
| Chloramphenicol | 15(31) | 3 (43) | 10 (67) | 1 (25) | 5 (71) | 1 (50) | 3 (100) | 1 (50) | - |
| Gentamicin | 0 | 2 (29) | 2 (13) | 0 | 5 (71) | 1 (50) | 1 (33) | 0 | - |
| Contimoxazol | 7 (15) | - | 14 (93) | 1(33) | 6 (86) | 2 (100) | 3 (100) | 0 | - |
| Oxacillin | 1 (2) | - | - | - | - | - | - | - | - |
| Ampicillin | - | 0 | 14 (93) | 2 (50) | 7 (100) | 2 (100) | 1 (100) | - | - |
| Ceftriaxon | - | - | 1 (7) | 0 | 3 (43) | 1 (50) | 0 | 1 (50) | - |
| Vancomycin | - | 3 (43) | - | - | - | - | - | - | - |
| Teicoplanin | - | - | 1 | 0 | 3 | 1 | 0 | 0 | - |
| ESBL | - | - | - | - | - | - | - | - | - |

* Intermediate resistant was considered as resistant, + No clinical significant germ: Coagulase negative staphylococcus, Corynbacterium, Bacillus and no growth (n=14).

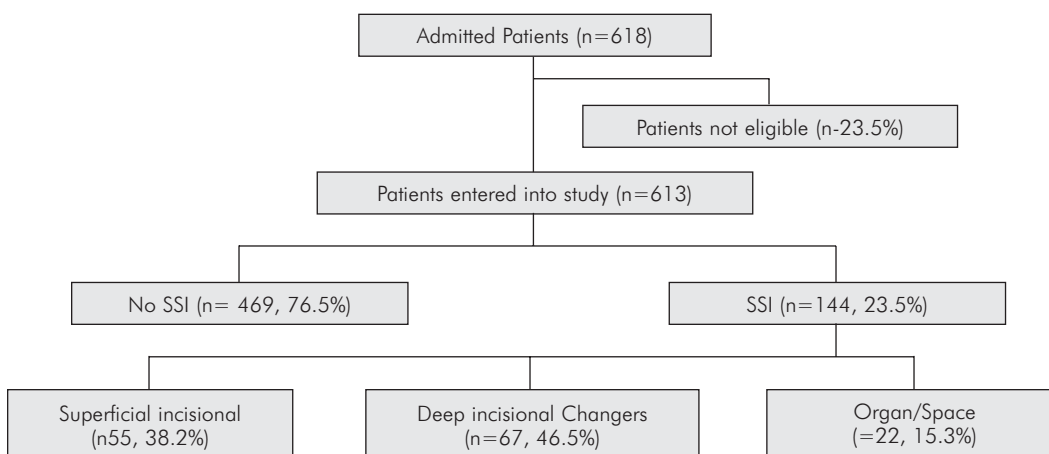
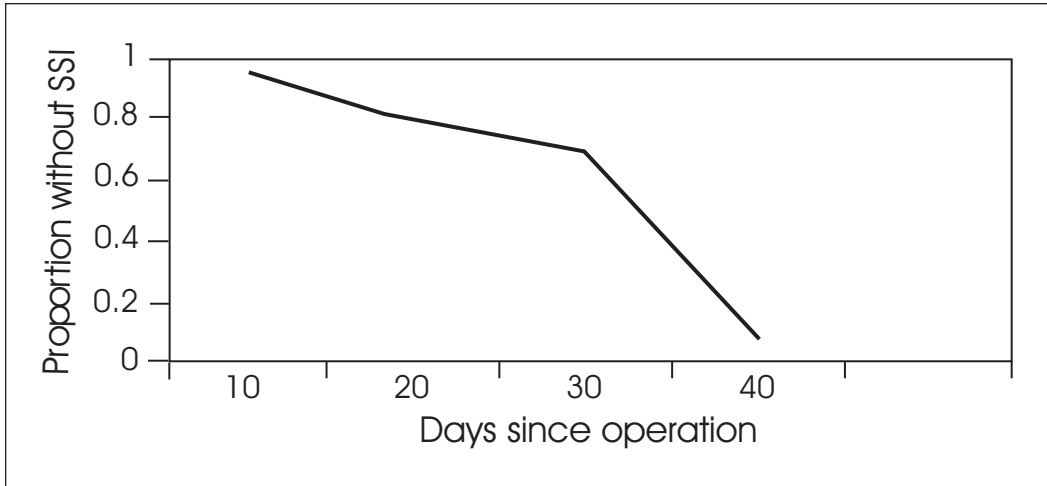
Figure 1: Proportion of SSI

Figure 2: Time detection of SSI indicating the effect of the incomplete follow - up (Kaplan Meier)



23.5% of the eligible patients developed SSI of whom 38.2% were superficial, 46.5% deep and 15.3% on Organ or space SSI. Three patients died of SSI. Median hospital stay of all patients was five days.

79% of the SSI patients were detected during hospitalization with median time of 6 days. Nine of the SSI patients had to be re-admitted because of SSI.

46% of all patients failed to return for follow up after discharge.

Analyses of each risk factor showed a significant association of ASA score and duration of intervention but no significant effect to mass index anaemia or Hyperglycaemia. *S. aureus* was in 37%, *E.Coli* in 11%, *Enterococci* in 5% *pseudomonas* in 5% and 35% had no organism.

Discussions

The CDC's National Nosocomial Infections surveillance system states SSI to be the third most frequently reported Nosocomial infection accounting for 14% to 16%. Among surgical patients SSI remain at 38%.

Kirkland et al showed that patients who develop SSI are twice as likely to die, 60% more likely to be in ICU, need 5 days more hospital stay and five times more likely to be readmitted.

Poulcer et al found that up to 0.5% of Annual National Hospital Budget is spent on SSI.

Non-industrialised countries, with limited resources, face the same problem but on a large scale due to critical Hygiene conditions and Deprived Economic circumstances in many Hospitals. Large patient numbers as well as crowding, understaffing and insufficient equipment further complicate the delivery of Hygienic standards of care.

Studies in tertiary and University hospitals in sub Saharan Africa report wound infection rates of 19% to 21% with comparable risk factors and pathogens.

In sub Saharan Africa no recorded study to Primary and Secondary care Institutions exists.

Conclusion / Remarks

The incidence of SSI detected in this study was high, probably related to the limited

resources in the operating theatre. SSI prevention guidelines developed in Industrialised Countries are a good base for surveillance also at primary health care level and in countries with limited resources. Periodical high-level evaluation of the circumstances regarding SSI is crucial.

As we focus our efforts on reaching the Health Targets set in the Millennium Development Goals, it is important to understand the challenges to Health.

Vulnerable and Marginalized population groups require priority attention.

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Publication Series Issue No. 4th December 2003
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IN CONFORMITY WITH THE PRB ACT THIS ISSUE SHOULD BE CONSIDERED
AS VOL.1 NO.2 IN PLACE OF VOL.13 NO.2

Unusually Large Bartholin Gland Cyst - A Case Report

Dr. S. K. Baasu

Introduction:

Bartholin gland cysts and abscesses are common problems in women of reproductive age. Bartholin glands are located one on each side at the posterior introitus and drain through ducts that empty into the vestibule at approximately the 4 o'clock and 8 o'clock positions. Their function is to secrete fluid onto the mucosal (inner) surface of the labia. Bartholin gland cysts, the most common cystic growths in the vulva,^{1, 2} occur in the labia majora. Two percent of women develop a Bartholin gland cyst or gland abscess at some time in life. Abscesses are almost three times more common than cysts. A Bartholin gland cyst can swell from 0.25 in. (0.64 cm) up to 3 in. (7.62 cm). The author presents here a case of unusually big Bartholin gland cyst which is unique in many ways.

Case History:

Mrs. U C, aged 65 years, P2+0 presented with H/O left sided huge vulval growth gradually increasing in nature for the last 4 years. Besides mild discomfort because of the size of the growth and sense of heaviness she did not have any other problem. The patient had undergone menopause 16 years back.

On examination, there was a huge left sided sausage shaped cystic mass occupying the entire left vulva involving mainly the Labia Majora and pressing the Labia Minora medially, occluding the introitus. It was extended from mons pubis above to almost perineal body below and pushing the Rt. labia further laterally. The mass was fairly mobile. The skin over the tumor mass was stretched but otherwise normal. A provisional diagnosis of Lipoma or degenerated Fibroma of the vulva was made.

The cystic tumor mass weighing 750 Gm. and 6 1/2 inches long was removed en masse.

Histopathology findings:

Gross Description:

1. 15x6 cm capsulated sausage-shaped cystic tumor containing brown jelly-like material. Wall is smooth 0.2 cm.
- II. Fatty tissue 6x 2.5x 0.6 cm gross- NAD

Microscopic:

1. Sections show a cyst with a thin fibrous wall and a luminal surface which either has no mucosa or an attenuated stratified squamous non-keratinizing epithelium. Many cyst macrophages are seen abutting luminal surface. Wall shows patchy chronic inflammation. No atypia seen.
2. Section shows unremarkable adipose tissue with focal hemorrhage

Diagnosis: **Benign epithelial cyst Bartholin gland origin. No evidence of malignancy.**

Discussion:

The Bartholin glands are small and cannot be seen or felt when they are normal. Bartholin glands cysts are relatively painless enlargements of the gland. A Bartholin cyst develops when the duct exiting the Bartholin gland becomes blocked. The cyst typically presents as a medially protruding mass in the posterior introitus in the region where the duct opens into the vestibule.³ The fluid produced by the gland then accumulates, causing the gland to swell and form a cyst. An abscess occurs only when a cyst becomes infected.

The cyst can grow from the size of a pea nut to that of a golf ball. A cyst is usually not very painful, and significant pain suggests that an abscess has developed. However, large cysts may be painful simply by virtue of their size. Bartholin gland cysts are not infected. In some cases, however, they can be caused by an infection, or they may become infected. The differential diagnosis includes cystic and solid lesions of the vulva, such as epidermal inclusion cyst, Skene's duct cyst, hidradenoma papilliferum, and Lipoma.



Left sided Bartholin gland Cyst



The cyst was removed en masse

The treatment depends on one or more of these factors:

- ◆ The size of the cyst.
- ◆ Whether the cyst has recurred.
- ◆ Whether the cyst is infected (abscess).
An infected cyst needs to be drained and is usually treated with antibiotics

While a small cyst can just be watched over time to see if it grows, in most of the cases a minor procedure called **marsupialization** is done. This involves making a small cut in the cyst to drain the fluid. Stitches are then placed at the edge of the cyst to allow a small opening to form. Less common procedures involve removing the entire gland surgically.

Because of its enormous size, the entire cyst was removed en masse and the diagnosis was made only post operatively after histological examination of the specimen.

The author strongly feels that even with preoperative diagnosis of Bartholin cyst the cyst

should be completely excised in a post menopausal woman because of the fear of cancer (Adenoid Cystic Carcinoma) though some investigators⁴ have suggested that surgical excision is unnecessary because of the low risk of Bartholin gland cancer (0.114 cancers per 100,000 woman-years). However, if the diagnosis of cancer is delayed, the prognosis can be poor.

The present case was also unique because of:

- 1) The enormous size of the Bartholin cyst (Extensive Literature search did not find any reported case of such big size Bartholin Cyst)
- 2) Unusual age(65years) of the patient to have a Bartholin cyst (Bartholin gland cysts and abscesses usually occur during the reproductive years, especially between 20 and 29 years of age and gradual involution of the Bartholin glands occur by the time a woman reaches 30 years of age.⁵ In spite of its huge growth for a period of 4 years the cyst did not get infected or ruptured.

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Role of Intravaginal Prostaglandin E1 tablet for Induction of labour: Our experience in rural area

Dr. Rajesh Tongaonkar

Introduction

Induction of labour to achieve successful vaginal delivery is a great challenge to an obstetrician, especially in rural areas as patients are quite often not willing for Caesarean Section even if it becomes necessary. A fair trial of labour is a must to avoid caesarean section.

Successful outcome following induction of labour depends not only on proper selection of the patient but to a great extent on the patience and good intrapartum supervision of the obstetrician.

Induction of labour is mainly indicated when pregnancy needs to be terminated due to maternal or fetal well-being. Post dated pregnancy, pregnancy induced hypertension (PIH), IUGR, severe oligohydramnios, IUD, gross congenital anomalies, etc are few such indications. Many obstetricians resort to unnecessary and hasty caesarean section in those situations.

We tried to avoid this by using intravaginal PGE1 tablet and do caesarean sections only when absolutely necessary.

Increased production of prostaglandin plays a major role in cervical ripening process. Prostaglandin E₁ tablets causes onset of labour with cervical ripening after 1 or more applications. But it is very difficult to assess which patient will respond to this mode of induction.

Material and method:

Over the last one and half years, out of 1300 deliveries, 210 patients required induction of labour, in presence of unfavorable cervix i.e. with Bishop's score <6 and adequate or borderline pelvis. Patients with rupture of membranes, already existing uterine

contractions, heart disease and bronchial asthma were excluded.

One-fourth Tablet of Misoprostol (25 mcg) was inserted deep intravaginal into the posterior fornix. Patient was observed for onset of uterine contraction. Half-hourly foetal heart monitoring was done. Repeat per vaginal examination was performed after 3 hours to assess the cervical condition. In case of no dilatation of cervix another quarter of the tablet of Misoprostol was inserted and if needed insertion of quarter tablet each time was repeated every 3 hourly for 24 hr.

Even after 24 hours if cervix failed to dilate or there was no uterine contraction oxytocin IV drip was started. Artificial low rupture of membrane (ARM) was done when the cervix was more than 3cm.dilated. *Buscopan* Inj was given intramuscularly to hasten the process of labour.

Vaginal delivery was considered as the successful outcome.

Results:

Out of 210 patients 170 patients had cervical ripening with 2-3 Misoprostol tablets (each tablet costs around Rs.9) and went into spontaneous labour. 40 patients required augmentation of labour with oxytocin. ARM followed by Inj. *Buscopan* IM 2-3 injections was performed in 92 patients.

The main indications for induction in our series were postdated pregnancy (42), pregnancy induce hypertension (27), previous L.S.C.S. (16), intrauterine Deaths (70), oligohydramnios (35), IUGR (10) and congenital anomalies (10).

Vaginal delivery was achieved in 182 patients (86.6%) with 35 assisted vaginal deliveries by

vacuum extraction. Caesarean section was done in 28 patients (14.4%) mainly for failure of descent (14), foetal distress (8) and failure of dilatation of cervix i.e. failed induction in (6) patients.

patient had hyper stimulation. One patient of previous LSCS who was not willing for caesarean section unfortunately ended with rupture of uterine scar and the dead baby.

TABLE-1: Indications for Induction of Labour and Outcome in terms of Type of Delivery

| Indication | No. | Vaginal Delivery | Assisted Vaginal Delivery (Vacuum) | Caesarean Sections |
|----------------------|-----|------------------|------------------------------------|--------------------|
| Postdated pregnancy | 42 | 19 | 12 | 11 |
| PIH | 27 | 8 | 10 | 9 |
| Previous LSCS 16 | 6 | 4 | 6 (37.5%) | |
| IUD | 70 | 70 | 0 | 0 |
| Oligohydramnios | 35 | 25 | 8 | 2 |
| IUGR | 10 | 9 | 1 | 0 |
| Congenital Anomalies | 10 | 10 | 0 | 0 |
| Total | 210 | 147 | 35 | 28 |

The induction delivery interval ranged from 6 to 96 hours. Out of that 12 patients delivered within 12 hours, 115 patients delivered between 12 and 24 hours while 78 patients in 24 to 48 hours and 5 patients after 48 hours.

TABLE-2: Induction - Delivery Interval

| Interval In Hours | No. of cases |
|-------------------|--------------|
| < 12 | 12 |
| 12-24 | 115 |
| 24-48 | 78 |
| > 48 | 5 |

In our study there were some complications such as Post partum hemorrhage in 15 patients out of which 12 had atonic PPH controlled with prostaglandin injection, and 3 had cervical tear. (4 Patients required blood transfusion). 22 patients had foetal distress, 17 of which had thick meconium stained liquor. 5 patients had simple bradycardia. None of the

However suturing of the ruptured scar in the usual manner in 3 layers saved the uterus.

TABLE-3: Complications

| | |
|------------------------|----|
| Postpartum Haemorrhage | 15 |
| Uterine Atony | 12 |
| Cervical | 3 |
| Foetal Distress | 22 |
| Foetal Bradycardia | 5 |
| Thick Meconium | 17 |
| Uterine rupture | 1 |

Patients with low Bishop's score were at higher risk for LSCS. In our study the caesarean section rate was 16.9% in patients with Bishop's Score of 0-2, 10.4% with Bishop's score 3-4 and 5.2% with Bishop score 5-6.

Patients with previous LSCS were also at higher risk for LSCS as 37.5% patients landed in repeat LSCS.

TABLE-4: Bishop Score and C.S. rate

| Bishop Score | No. of cases | No. of LSCS |
|--------------|--------------|-------------|
| 0-2 | 112 | 19 (16.9%) |
| 3-4 | 79 | 8(10.4%) |
| 5-6 | 19 | 1(5.2%) |

It is also seen that nulliparous patients and patients with preterm pregnancy were at slightly higher risk for failure of induction. Maternal age has no or little role to play.

Thus to conclude from our study, more than 86% patients with unfavorable cervix can achieve successful vaginal delivery by using

intravaginal Prostaglandin E1 tablets and more than 62% patients with previous caesarean section delivered vaginally. Chances of failure are high in patients with low Bishop's score and previous LSCS. Also it is cost effective in rural area where cost of therapy matters, as hardly 1-2 tablets are require for successful Induction in majority of patients.

TABLE-5: Statistics of Deliveries in Last 2 Years

| | 2002 | 2003 (September end) |
|----------------------------------|------------|----------------------|
| Total No. Of Deliveries: - | 794 | 516 |
| Total No. of LSCS | 91 (11.5%) | 55 (10.6%) |
| No. of induction with Cerviprime | 128 | 82 |
| L.S.C.S following Cerviprime | 19 (14.8%) | 9 (10.9%) |

TABLE-6: Pre -Induction Factors Influencing Outcome of Delivery

| Factors | Vaginal Delivery | Caesarean Section |
|------------------------|------------------|-------------------|
| Maternal Age | | |
| <25yr | 91 | 16 |
| 25-30yr. | 69 | 9 |
| >30yr. | 22 | 3 |
| Parity | | |
| Primiparous | 113 | 20(13.0%) |
| Multiparous | 69 | 8 (9.4%) |
| Previous LSCS | 16 | 6 |
| Gestational Age | | |
| Preterm < 37 wk | 121 | 1 |
| Term 37-40 wk | 30 | 16 |
| Postdated Preg. > 40wk | 31 | 11 |

Editor's note: Though Misoprostol shows promise as a highly effective, inexpensive and convenient agent for labour induction, the central issue is whether it is safe. The literature contains a large number of experimental trials on Misoprostol induction of labor. However, as pointed out by the editor of the **British Journal of Obstetrics and Gynaecology** (BJOG) in January 2004, these trials "have been too small to provide clear evidence on rare but important outcomes". Many RCT reports including the Cochrane Library review suggest increase in uterine hyperstimulation with fetal heart rate changes, abnormal fetal heart rate patterns and more meconium with Misoprostol. Uterine hyperstimulation was a common denominator of all the Medico-legal cases in U.S. involving adverse events following Misoprostol induction of labor. Uterine hyperstimulation and hypoxic fetal heart rate patterns had been confirmed by thorough review of the electronic fetal monitoring strips. All cases of uterine rupture following Misoprostol induction were not just dehiscence but clear, significant ruptures of 6-18 cm, confirmed by the operative report on the emergency caesarean section done in each case of uterine rupture. Not all of them were post caesarean pregnancy. All cases of amniotic fluid embolism after induction with Misoprostol were confirmed by the pathologists' autopsy reports. Finally, all cases of hypoxic ischemic encephalopathy of the infants had been confirmed by EEG, MRI and pediatric neurological examination.

Therefore Misoprostol should be used very cautiously for induction of labor until approved research trials with much larger sample sizes have been conducted.

Letters to the Editor

Subject: Your footnote to the article by Dr. Rajesh R. Tongaonkar in *January 2005 issue*.

Dear Sir,

I would like to make a few additions to your remarks following the above article about the use of mifepristone for the safe abortions in rural set up.

The risks involved in the use of mifepristone for abortion are:

1. Missing the diagnosis of ectopic pregnancy.
2. Failure to terminate the pregnancy.
3. Incomplete evacuation of products.

All the above complications risks can be obviated by the use of ultrasound examination before during and after the abortion process with mifepristone. The need for an ultrasound examination at all stages cannot be over stressed. This method of abortion should be adopted only where the facility for Ultra sound examination is available.

Failure to adhere to this guideline has led to gross abuse of the drug, where even GPs are dispensing it. The drug is very safe and the option should always be given to the patient with an unwanted early pregnancy.

Yours Faithfully,

Dr. Milind N. Shah
Shradha Surgical Clinic NimZari Rd
Saraswati Colony, Shirpur, Dist. Dhule

Reply

I fully agree that there is an absolute need to adhere to the guidelines including ultra sound examination at all stages of abortion with Misoprostol to avoid complications and risks. Therefore abortion by Misoprostol should always be conducted under medical supervision and requires proper back up and referral. Unfortunately in India Misoprostol can often be purchased over the counter without a prescription thereby facilitating the abuse of this drug. Since in rural India paramedics and quacks are also involved in abortion practice, there is a strong potential for abuse of Misoprostol. Unsupervised use of Misoprostol may result in many incomplete abortions, which could initially go unrecognized and result in uterine bleeding or intrauterine infection. Use of Misoprostol at home may also be associated with treatment failures, and if the pregnancy is allowed to continue it could result in severe malformations. Severe bone and cutaneous defects associated with intrauterine exposure to prostaglandin E has been reported in several literatures.

The strict time schedule of visiting the doctor within 7-9 weeks of LMP, making at least 2 visits to the doctor, lack of ultrasound facilities and other back up services in rural areas perhaps defeats the purpose of choosing this method in Indian situation, especially in rural area.

- Dr. S. K. Baasu, Editor

OP-Ed Piece

"How Are You With Open Ether?"

(A medical student's impression about Rural Surgery in India)

Lynette J Mason

"How are you with open ether?" This was the question asked to me by Mrs. Letitia De, wife of Dr. Sitanath De, FRCS Edinburgh, at 7.00 am on a bright and sunny December morning. It was posed because I was on my way to Dr. De's nursing home to assist in an appendicectomy operation, anaesthesia for which was to be by the open-ether technique. Being a final year medical student at Bart's and The Royal London School of Medicine in London, I'd never come across this method of anaesthesia before. Nor had I been required to read about it, even during the fortnight of anaesthesiology training I'd received in my first clinical year. With my slightly embarrassing answer, "I have absolutely no idea!" I'm sure I heard Dr. De groan slightly.

Thus began my first experience of a three-month period of elective study of rural surgery in India. The simple enquiry had filled me with a certain sense of trepidation (above the anxiety already felt from straightforward things; could I remember any abdominal anatomy, what were the surface markings of McBurney's Point and so on). As I walked towards '*Banaful*', the nursing home situated next door to the De's house, at least half the large and beautiful butterflies from the garden seemed to have taken refuge in my stomach. However, there was little time to ponder on such things as within a couple of seconds we'd arrived and I was being introduced to the paramedical staff and hastily shown the scrub-room. Shortly the patient had been induced using ethyl chloride and the operation was about to begin.

All this was taking place at Jhargram, Midnapur district, on the south-westernmost point of West Bengal, over 150km west of

Calcutta. It has been home to the De family for more than thirty years. Dr. De left India for the UK as a recently qualified MBBS in 1960 and returned to his home village exactly ten years later, having acquired a wife, two small children, an FRCS and a vague idea about delivering affordable and safe surgery to the villagers of Jhargram. Since then the village population has increased to approximately 70000. It has become a sub-divisional town with a 265-bed hospital. However, Jhargram is still very much a rural place. If you travel a kilometer in any direction beyond its relatively urban centre, with its Computerized Train Reservation Office and Internet Café, You'll soon discover vast expanses of farmland. Here, people toil the land year in, year out, usually surviving on an income of \$1 per day to feed a family of at least four. There are few cars in these places, and fewer telephones. The road is in a state of extreme disrepair. Some villages are many kilometers from the nearest government-run day-clinic and up to 100km from the secondary referral hospital in Jhargram, which despite being well equipped, has been badly managed and is under-used as a result. Levels of literacy among the people of rural India are low. There is a huge gender disparity with up to 66% of women being illiterate compared to only 37% of males. This lack of basic education among women has a huge impact upon health, birth control and nutrition¹. This is the area and the population Dr. De had returned from England to serve.

Back to the appendicectomy, when my initial fears of falling in a heap on the Operating Theatre floor after my first sniff of ether had been allayed (by me still being vertical), I began to take notice of my surroundings. The theatre

was a large and airy room, painted bottle green. There was a high-wattage bulb hanging bare over the patient who lay on a narrow wooden bed. There was an oxygen bottle and mask, a drip stand, a be-gowned assistant at a green-robed table, professionally ordering operating instruments. The anaesthetist (not a permanent member of staff but a colleague of Dr. De with a Diploma in anaesthesia and who runs an obstetric clinic nearby with her husband) sat at the patient's head. There was the same strong smell of disinfectant, the same purposeful hurry to prepare the room and the same sense of expectancy as we awaited the surgeon to bring his art.

The first difference I noticed was the complete lack of any monitoring equipment. There were no computer screens displaying colourful graphs, no continuous ECG, no pulse oxymetre, no automatic blood pressure monitor. I began to realize how much we as medical students are taught to rely on electronic equipments from the beginning of our training. If an ECG is required (standard pre-and peri-operative procedure in the UK) then the patient has to be sent to another clinic, and he has to pay handsomely for the pleasure. The same can be said for a chest X-Ray, full blood count and U&E's investigations, which are all ubiquitous in surgical wards of London (and probably Calcutta?). Here, these investigations are an added expenses, which sound clinical judgment, thorough examinations and careful, basic observations, can in most cases, render superfluous.

The instruments used for operating were just as you'd find anywhere. The scalpel is still very much a vital piece of equipment, as diathermy cannot be used in conjunction with open ether because of the obvious risk of fire. This means that operations may take a little longer as haemostasis is achieved with meticulous tying of bleeders, rather than instant cautery. Open ether is preferred to endo-tracheal anaesthesia because of the difficulty in obtaining a regular and reliable

supply of NO₂ and O₂. Otherwise, the operation was much as one would expect.

That was until the patient's relatives came in mid-operation. Wearing masks and instructed not to touch anything, two young men trooped in and watched the proceedings intently. I have to admit, I've never retracted someone's bowel more carefully before (within the span of my short surgical career though). The close involvement of the patient's loved ones in patient's care has been a long held principle of Dr. De's. May be, it is partly for the convenience as there aren't so many qualified nurses in this part of the country, but primarily because the relatives also make the most diligent observers. They are quick to call the doctor when the contents of the drip bag fall low or if the patient's temperature begins to creep up. It is Dr. De's belief that the high standards of care from loved ones helps patients convalesce quicker and keeps rates of post-operative infection to a level, the smartest London hospital would be proud of. Having watched a patient returned to a bed made up with his own sheets and blankets, fed homemade food by his worried wife and carefully watched over by his daughter, I think I have to agree to Dr. De's philosophy.

The emphasis at *Banaful* is on providing safe, appropriate and affordable surgery to people who simply do not have the means to travel to Calcutta and pay the exorbitant fees for a modern Laparoscopic operation. Operating techniques and equipment have been modified to keep costs down. This means performing a Laparotomy rather than minimal access, 'Key-hole' surgery; recycling needles rather than using pre-threaded single-use needles; not using expensive Vicryl-mesh reinforcers in hernia repairs and instead relying on the more time-consuming method of multi-layer stitching. By these and many other cost reducing practices, Dr. De is able to provide low cost, yet effective surgery successfully to the poor community. I've learned that a fat file of repeated tests and

investigations are not necessary for safe and efficient surgical care.

Dr. De is assisted in his endeavor by a team of self-trained paramedics, one of whom (the be-gowned assistant at the appendicectomy operation) has 30 years experience and who's stitching would put that of most Registrars to shame. By training and nurturing young men from the locality Dr. De has acquired a skilled workforce. They are tutored in the varied arts of suturing, taking basic observations, phlebotomy, post-operative patient checks, wound dressing and drain removal, sterilization of equipment, preparing the operating theatre and patient and expertly assisting in any operation. They also have a good knowledge of drug therapy, fracture-healing times and can interpret X-Rays better than young average medical student. Basically they are a nurse, a casualty-officer, housekeeper and a house surgeon- all rolled into one. For a nursing home nestled in the more remote parts of northeastern Indian jungle, this is vital. Qualified nurses are extremely hard to come by. They usually require salaries beyond the scope of 'affordable surgery', if they are willing to stay in a rural area at all. Dr. De's paramedical staffs have been meticulously trained by him to be more than competent at all the tasks required for day to day's smooth running of a surgical ward even if that meant the FRCS doctor himself learning 'menial' tasks such as how to properly shave a patient in preparation for a herniotomy.

After assisting in various operations and sitting in on the daily consultations for nine weeks at Jhargram, I realized that rural surgery is a specialty of its own, albeit a wide-ranging one. You just cannot control what comes through the doors of the chamber on any given day. You

can hardly turn a case away. In most of the cases the patients might have left their animals, crops and homes behind and traveled for hours on collapsing roads, at best on the 'one bus a day' that passes through the village to reach your clinic. They come with great expectation to get cured, to end their sufferings. The problems could be varied, not simply surgical. Thus, an FRCS in General Surgery has to be a General Practitioner, a dermatologist, a psychiatrist, a parasitologist and a nurse. These specialties rarely call for the particular skills of a surgeon (except perhaps the rare cases of intestinal blockage by *Ascaris* infection) but the rural surgeon is required to deal with them all. Conversely, areas of surgery that are becoming 'specialty surgery' in urban hospitals, such as thyroid, ENT and breast surgery (not to mention surgical oncology), all fall within the realm of rural surgery. And all these must be performed with only the most basic of monitoring, resuscitation equipment and with practically no back up from colleagues, as one would expect in even the smallest District General Hospital in Britain. Sadly, this is a job for which medical undergraduate and surgical internship training is woefully inadequate, both in the UK and in India. For many years, Dr. De has campaigned for rural surgery to become an integrated part of the MBBS or post-graduate training of doctors, especially in India, where such skills are crucially needed. A compulsory course in rural surgery and its unique problems would help prepare a new generation of doctors to take up the challenge that this type of single handed practice offers and would greatly benefit the vast majority of the Indian population who do not live in urban centers. Also, it would avoid another medical student's blushes when asked "how are you with open ether?"

"Erratum"

In the January issue of Rural Surgery (vol.XIII. No.1) Dr. Jitendra Gosain's designation has been wrongly printed (in the Photo section) as President ARSI by mistake. Instead it should be read as President ASRI. The inadvertent mistake is regretted. --- *Editor*



Heartiest Congratulations!



Dr. K.C.Sharma (Chief consultant surgeon Udhampur) and a senior and active member of ARSI has been awarded "**Highest J&K State award for meritorious public service**" on 26th Jan 2005. The award consists of Rs. One Lakh cash, Medal and a citation.

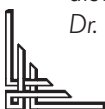
Born on 10-6-40 Dr. Sharma served J&K State as A-grade Surgeon Specialist. He has contributed immensely in the field of Surgery, medicine, Parasitology, Dermatology, Ethno-pharmacology and agriculture through his articles, describing newer technique of surgery, newer findings and research work. He has also written books on plant medicine, herbs, and wild flowers and translated Ancient Tibetan Medical manuscript into English language. Dr. Sharma is also the recipient of many awards from J&K State and adjoining Punjab and Haryana state.

Dr. N.M.Prabhu (consultant surgeon, Karnataka) and a senior and active member of ARSI has been awarded "**Karnataka Rajyotsava state award**" on 1.11.2004 for his extraordinary achievement and contribution to Professional bodies, professional and medico social field, promotion of health in rural and slum areas.



Chief Minister of Karnataka Sri N Dharma Singh (Rt.) and Industries Minister Sri P.G.R.Sindhia (Lft) honoring Dr. N.M.Prabhu

(Dr. N.M.Prabhu, born on 23.05.1932 was Hony. Professor of surgery at Karnataka Medical College, Hubli (63-75), President of IMA, Hubli branch (82-83), Chairman Karnataka chapter ASI (83-84). He is the first Endoscopist in India to organize Gastroscopy camps in Rural India. More than 100000 rural patients and 100000 school children had been benefited by his 35 years of rural medical activities. He was also actively involved in Leprosy eradication program at Chabbi village. Dr. Prabhu is the recipient of many prestigious awards at state and IMA level.)



ATTENTION PLEASE!

FIRST INTERNATIONAL CONFERENCE OF RURAL SURGERY

XIII Annual conference of Association of
Rural Surgeons of India
and
2nd Annual joint conference of ARSI and ASRI

Venue: - Ujjain, Madhya Pradesh, India,

Dates: - 23rd to 25th Sept.2005

Organising secretary - Prof. V. K. Mehta.



Venue of the Conference: R.D. Gardi Medical College

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