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Original Article

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Techniques

Should Rural Surgeons Re-consider Laparoscopic Hernia Surgery? Initial Experience with Lift Laparoscopic Hernia Surgery

Journal Scan

FROM ARSICON 2015-MIDNAPORE

President's address

SYMPOSIUM

Rural Surgery – A Struggle for Human Excellence



लोकाः समस्ताः सुखिनो भवन्तु

Editor :

Dr Dilip Gupta

For Circulaion to Members only



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From The Desk of Editor

EDITORIAL

“Technological excellence in the field of health and medical care has led to increase of cost of services enormously with modern medical care going out of bounds of six billion out of the total of eight billion population of the world. Corporate hospitals in our country are an outcome of this form of development. This time we had ARSICON at Midnapore, West Bengal. When one helps another, taking risks beyond the call of one’s duties, or risks one’s safety to help another, it is said to be very good examples of Human excellence; e.g. bystander prevents a person falling under the moving train, risking his own life!

Rural surgery, though not as dramatic, has such acts again and again. Rural surgeons frequently try to save a life or to reduce morbidity by every means possible; for example, they risk and do caesarean section delivery, not a part of general surgical training, to save baby or mother or both; or risk doing a unbanked direct blood transfusion-UDBT, breaking the law, or even risk doing something that you had never done before but is urgently needed to save a life. Therefore I believe that by and large, all rural surgeons satisfy all or most of the conditions of this definition. They must be proud that they all are great examples of human excellence, and that their Rural Surgery is an act of Human excellence.

If one is to write about the struggle to develop Rural Surgery, one must start with the struggles of individual rural surgeon. For, he or she has had to struggle the most to establish his or her rural surgical practice.”

-Excerpts from Article by Dr Banerjee

Read more about the Human Excellence in this issue.

Dr. Dilip Gupta

Editor

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Establishing cost effective, safe surgical services for obstetrics and gynecological diseases at rural areas by specialized health camps

Majeed M*

Abstract

1. Introduction: Safe surgical service is largely inaccessible to most of the poor rural population of the world. Temporary multidisciplinary health camps can provide specialized surgical services in a safe and cost effective manner by proper resource utilization as well as following the WHO Safe Surgery protocol. The aim of this study was to establish cost effective, safe surgical services for obstetrics and gynecological diseases at rural areas.

2. Materials and Method: This prospective study was conducted from September 2013 to August, 2014 at a specialized multidisciplinary health camp conducted at regular intervals at Charfassion of Bhola district along the costal areas of Bangladesh. All patients who underwent surgery for obstetric and gynecological diseases within this period at that centre were included in the study. Patients were reviewed 1 week and 6 weeks after operation. Outcome was measured in terms of early and late postoperative morbidities.

3. Observations: Twenty three major surgery for different obstetric and gynecological indications were done. Out of which laparotomy - 6, caesarean section- 7, vaginal hysterectomy -6 and abdominal hysterectomy- 4. Significant primary hemorrhage occurred in 1 patient , surgical site infection occurred in 1, pelvic infection occurred in 2 and keloid in 1 patient.

4. Conclusions: Most of the rural populations cannot afford or get access to major surgical treatment. Safe major surgery at rural level have lots of constrains related to operative and anesthetic setup , unavailability of multidisciplinary specialist and unavailability of safe blood transfusion.

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Organizing safe surgical services at rural areas by specialized multidisciplinary medical camp can be a new initiative for low resource setting.

Introduction

A rural area is a geographic unit that is located outside cities and towns. In developing countries the rural area comprises of settlements (villages) and non -settlements (agriculture and forest land), where majority of the population resides.¹The rural population is one of the major contributors of a country's economy. In context of the developing country, the health resources and services are yet largely inaccessible to rural population. Most of the rural people can not avail health services due to illiteracy, unawareness regarding health problems, poverty, ignorance of family, lack of accessible affordable health facilities. Among them, women are specially deprived, due to the "culture of silence". Such situation becomes worse, when they deal with gynecological disease. Women of rural area tend to internalize their health problems because of their status in family, they may not be allowed to seek health care, or they may feel shy about reporting such sort of reproductive problems causing them to be stigmatized by community.^{2,3}

Gynecological diseases cover a range of conditions, which has substantial impact on quality of life of women. Evidence shows that, in most cases, maternal mortality can be readily identifiable. But estimating the prevalence of gynecological disease is more problematic. Research suggests high prevalence of gynecological disease in rural area of developing country. For example, According to WHO, reproductive ill health accounts for 36.6 per cent of the total disease burden among women aged 15 to 45 years at global level.⁴

In the rural areas for obstetrics and gynecological disease, minor surgery can be

performed as day cases but major surgery is difficult to avail due to scarcity of Ob-Gynae specialist, anesthetist, medical resources and infrastructural. Though in some rural areas, general surgeons perform various type of surgery including caesarean section and hysterectomies, but it is inadequate to provide service. Therefore, to avail these major surgical service facilities, patients have to travel a long distance and have to bear additional expense besides basic medical expenses which is mostly unaffordable for poor rural people. Moreover, many patients do not accept surgical procedures for ignorance, poverty and fear. Against these backdrops, this study aims to explore and establish cost effective safe surgical services for obstetrics and gynecological disease at rural area.

To fulfill the aim, this study was conducted at Bangladesh, a developing country of South Asia, located on the northern shore of the Bay of Bengal. The population of Bangladesh is predominantly rural, with almost 80 percent of the population living in rural areas. Health care service especially surgical services are still mostly inaccessible & inadequate for these people.

METHODOLOGY:

This prospective study was conducted from September 2013 to August 2014 at a specialized health camp. The health camp is set within one to two month interval for a period of 10 days at Charfassionupzilla of island district Bhola, which is situated along the coastal part of Bangladesh. Health camp was held in Gonoshasthayakendro health centre which is four storied building with provision of continuous supply of electricity by 2 generator and water supply. The health centre is run by 2 medical officers and 5 paramedics and 1 pharmacist throughout the year. Specialized health camp consisted of multidisciplinary specialists, junior doctors, trained paramedics with supportive pathological lab facilities, ultrasound, medicine and relevant logistics. There are two separate well equipped operative theaters along with adjacent post-operative room. Separate male and female ward for surgical patients. Medical team resides in separate building in back of the health centre, so they can provide emergency service also.

The Ob-Gynae specialist & resident medical

officer did the initial screening and record of patients attending in Ob-Gynae outpatient room, and then selected gynecological cases for medical and surgical treatment. Moreover, the non gynecological cases were referred to proper discipline.

Selected gynecological cases who agreed to undergo surgery in health camp were evaluated and investigated for anesthetic fitness. All patients were given pre-operative counseling before obtaining informed written consent. Blood donor or fresh whole blood was arranged as per requirement.

Patients selected for major surgery were admitted on day before surgery. While, minor surgical cases were done as day cases. Major surgical procedures were usually done at morning.

After completion of a successful surgery, post-operative complications were observed. Usually, patients were discharged on 3rd -10th post-operative day depending upon their physical condition and feasibility to reach home. In case of early discharge the patient was advised for post-operative follow up on 7th-8th post-operative day and the other 6 weeks later. Patients were instructed to report immediately at the centre or to contact over telephone for possible signs of early wound infection or any other complications.

Cost of medical and surgical treatment in this specialized health camp was considerably lower than other local private hospitals or clinics.

Results

During the study period of 12 months, total 6 specialized health camps were held and total 768 patients were initially screened in Ob-Gynae outpatient room.

Among the screened 367 (47.79%) patients of gynecological cases, 275 (75%) patients were selected for medical treatment and 92 (25%) patients of gynecological cases for surgical treatment. Moreover, 229 (29.82%) patients of non gynecological cases were referred to proper discipline.

Total 172 (22.39%) Obstetrics patients visited for Antenatal care, postnatal care and with obstetric emergency. Only 7 obstetrics patients were undergone caesarean section.

In surgical cases patients criteria's were set

regarding 1) Anaesthetic fitness ,2) Safety of particular surgery at rural centre, 3) Arrangement of blood transfusion as required, 4) Able to pay operative charge fixed by the camp authority, 5) Must have informed written consent.

After criteria fulfilled, major surgery was performed in 16 cases .Whereas criteria not fulfilled & major surgery not performed in 52 cases. 13 Major surgical cases were referred to tertiary centre, as those surgery were not considered safe in rural setting.

The ages ranged of operated patients were between 18 years and 67 years. All the patients were house wife.

Table 1: The indications, types of major gynaecological surgical procedures and complications of surgery are listed .

Gynaecological Disease for major surgery	No	Operation	No	Complication	No
Ovarian tumour	4	Laparotomy followed by	6	Keloid	1
Ovarian endometrioma	1	1.Unilateral salpingoophorectomy-2			
Menesteric cyst (preoperative diagnosis was ovarian tumour)	1	2.TAH & BLSO-2 3.Csytectomy-1			
Adenomyosis	1	Abdominal hysterectomy	4	Primary haemorrhage	1
Postmenopausal bleeding	1				
DUB	1				
Uterovaginal prolapse	1	Vaginal hysterectomy	6	Pelvic infection	2

Hysterectomy (abdominal and vaginal) was the most common operation (4+6=10), followed by laparotomy (6).Postoperative complications of major gynaecologicalsurgical werePrimary haemorrhage in 1, Pelvic infection in 2 & Keloid in 1.

Table 2: The indications and complications of Caesarean section.

Obstetric indication	No	Operation	No	Complication	No
Fetal distress	4	Caesarean section	7	Wound infection	1

Deep transverse arrest	1				
Breech (Primigravida)	1				
CPD	1				
Postdated pregnancy with unfavourable cervix	1				

Caesarean sections were performed of various indications of which fetal distress was the commonest indication.Postoperative complication of Caesarean sections was Wound infection in 1.

Table 3: The indications , types of minor gynaecological surgical procedures and complications of surgery are listed .

Gynaecological disease for minor surgery	No	Operation	No	Complication	No
Incomplete abortion	6	Evacuation & curettage	6	None	0
Blighted ovum	1	D,E & C	1		
Gartner duct cyst	1	Excision	1		
Bartholin cyst	1	Marsupialisation	1		

Evacuation &curettage (6) was the most common operation of minor gynaecological surgical procedures. There was no postoperative complicationfollowing minor gynaecological surgical procedures.

Table 4: Antibiotics used :

Operation	No	Combination of antibiotics	No	Infection	No
Laparotomy	4	Ceftriaxon +Metronidazole	4	Na	0
Abdominal hysterectomy	4	Ceftriaxon +Metronidazole	4	Na	0
Vaginal hysterectomy	6	Ceftriaxon +Metronidazole	4	Na	0
		Ciprofloxacin +Metronidazole	2	Pelvic infection	2
Caesarean section	7	Amoxycillin +Metronidazole + Gentamycin	7	Wound infection	1
Total surgery-major	23			Infection	3
Minor surgeries	9	Ciprofloxacin +Metronidazole	9	Na	0

In major gynaecological surgery commonest antibiotics combination was used Ceftriaxon& Metronidazole followed by Ciprofloxacin& Metronidazole. In Caesarean section antibiotics combination was used Amoxycillin, Metronidazole &Gentamycin . In minor gynaecological surgery antibiotics combination was used Ciprofloxacin & Metronidazole.Pelvic infection in 2 cases occurred following Vaginal hysterectomy where Ciprofloxacin & Metronidazole combination was used. Wound infection in 1 cases occurred following Caesarean section where Amoxycillin, Metronidazole & Gentamycin combination was used.

Table 5 : Approximated expenditure of surgery in other centers which was not feasible .

Facilities of surgical service	Travel cost by public transport (taka)	Travel cost by ambulance (taka)
Charfassion	<100 (\$ 1.3)	<500 (\$ 6.5)
Bhola	220 (\$ 2.8)	4000 (\$ 52)
Barisal	650 (\$ 8.45)	7600 (\$ 99)
Dhaka	1500 (\$ 19.5)	12000 (\$ 156)

Discussion

Now adays, surgeons of developed countries are performing many sophisticated surgery but our poor rural peoples can't even avail common surgical services .Roughly a third of the global population, estimating 2 billion people, live in areas with less than one operating room per 100000 people. As a result, patients in poor countries do not receive timely surgical services and suffer significant morbidity and mortality for preventable and treatable conditions.^{7,8} Without surgical and obstetrical services, up to 10% of the population will die from injury and 5% of pregnancies will result in maternal death.⁹

The limitations of providing surgical service at rural area are mainly 1) the technical problems mainly include non-availability of adequate equipment, no facilities for investigations and unqualified paramedic staff 2) the professional skill of the surgeon 3) legal problems.¹⁰ A study assessed 132 facilities in 8 low-middle income countries (Sri Lanka, Mongolia, Tanzania, Afghanistan, Sierra Leone, Liberia, Gambia and São Tomé and Príncipe) found that no

country had 100% of its facilities reporting continuous supply of uninterrupted water, electricity, and oxygen. That study clearly demonstrated massive shortfalls in the infrastructure and physical resources required to provide the most basic surgical care to save lives and prevent long-term disability.¹¹ Other barriers include the lack of information and education regarding surgical procedures, poor referral systems, as well as social barriers related to maternal health where women are limited by cultural norms to not seek care outside of the home.¹²

In context of our health infrastructure, the provision of major surgical care for obstetrics and gynecological disease are available upto upzilla. Rest of the rural population residing out of upzillalevel are deprived from this service. Even though there is provision of major surgical service up to upzilla due to scarcity of Ob-Gynae specialist, anesthetist, postoperative care and fresh blood transfusion, it remains practically unavailable to the rural peoples. So still the rural people have to travel to distant tertiary health facilities. Geographic barriers, poor road conditions make even their short trips difficult, costly and time consuming. We observed additional expenses besides basic health expenses regarding travelling cost, temporary residence cost of accompanier and so on. Moreover, in most cases due to our social context the male accompanier who is earner of family have to stop work to reach to health facility if the patient is female. Outreach surgery at rural community can avoid additional expenses to reach & avail surgical service.

Initiation of "The Mobile Theatre Scheme" in New Zealand, India was a great stride in expanding the scope of surgical services available in rural areas.¹³ Similarly, in Southern Sudan a team of expatriate consultants established surgical services in remote districts on free treatment basis.⁹ With this concept, Gonoshas thaya kendroone of the largest NGOs of Bangladesh launched specialized health camp at rural area providing both medical and surgical care of multiple discipline at low cost. Although specialized health camp was of multiple disciplines, our emphasis was on major surgical care for obstetrics and gynecological disease with the aim to establish cost effective safe surgical services for that rural area.

Our observation was 23 cases underwent different major surgery for obstetrics and gynecological disease with peroperative complication in 1 case and postoperative complications in 4 cases. Total complication rate of major surgery was 22 % and of minor surgery was none. There was no mortality. A study on rural surgery in southern Sudan found that the most common postoperative complications were due to urine retention in men after hernia repair (7%), wound infection (1.8%), and headaches after spinal anesthesia (1%).⁹ In Maharashtra, India a study was conducted where 449 cases were performed in rural hospital surgery camps and compared with 344 cases performed in the urban hospital. Intraoperative complications occurred in 0.2% rural cases compared to 5.5% of urban cases, $p = 0.01$.¹⁴ However, Doctors without Borders recently conducted a study on 20,000 surgeries in resource-limited areas from 2001 to 2008. The death rate was only 0.2%.¹⁵ The results of our observation is almost similar to various international studies conducted in this field. Complications were less with almost no mortality. Above studies concluded that surgery can be safely performed in areas with minimal resources and little or no sophisticated technology which is same as our observation.

Conclusion :

Despite numerous limitations, the demand for surgery in rural areas worldwide should not be any different from the surgery carried out in large cities. Establishing and ensuring full grade surgical services for rural community are not easy and also expensive. Emphasis should be drawn for surgical service for obstetrics and gynecological disease as women are deprived when the issue is about their reproductive illness. Outreach surgery by specialized medical camp can provide cost effective safe surgical service to the doorstep of rural community by utilizing manpower and limited resource in an effective way.

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Comparative study of Small Incision Cholecystectomy under Spinal anaesthesia Vs General anaesthesia

- Sohel Ali Afzal*

ABSTRACT :

OBJECTIVE :

Study aimed to evaluate efficacy, safety and cost benefit of conducting small incision cholecystectomy under spinal anaesthesia in comparison to general anaesthesia.

STUDY DESIGN : Prospective study.

PLACE AND DURATION :

Gonoshasthaya Samaj Vittik Medical College Hospitals from May'2011 to July'2013 .

MATERIALS AND METHODS :

Consecutive newly diagnosed cases of Cholelithiasis who reported to the department of Surgery and who meet the criteria of American Society of Anaesthesiologist's (ASA) physical status 1 and 2 , age between 18 to 80 and sex of the patient isn't considered as a exclusion criteria. Patient were randomly divided into two groups. SA group received spinal anaesthesia by hyperbaric Bupivacaine and GA group received Halothane, Nitrus, Sucxamethonium, Vacurium, Thiopental Na, Pethidine, occasionally Propotol and Fentanyl. The main end point of the study were efficacy, safety, post operative pain free interval ,analgesic requirement heart ,respiratory complications, length of hospital stay as well as cost benefit in both groups.

RESULT :

90 patients were admitted in to the hospitals (GK) with symptomatic Cholelithiasis from May 2011 to July 2013, 49 patients under went small incision Cholecystectomy under spinal anaesthesia & 41 were under General anaesthesia. In the SA group post-operative pain complaints after 4 hours where as in GA group after 30 minutes. SA group took only Inj.Pethidine & Paracetamol but GA group took

Pethidine plus Diclofenac/Ketorolac/Tramadol. Mean hospital stay of SA group 2.5 days as compared to 3.5 days in GA group. The average cost of SA group is about 50-60 Dollars where GA group is about 100-110 Dollars.

CONCLUSION :

Patients under went small incision Cholecystectomy under SA is not only safe but also effective than GA in reducing post-operative pain, analgesic requirement & length of hospital stay. small incision Cholecystectomy under Spinal anaesthesia is cost effective than General anaesthesia.

KEYWORDS :

Anaesthesia, Spinal anaesthesia, General anaesthesia, Mini Cholecystectomy, ASA Score,

INTRODUCTION :

Endotracheal general anaesthesia is the anaesthetic technique of choice for Cholecystectomy both in open Cholecystectomy and lap Cholecystectomy. The world literature until about a decade ago, suggested GA as the only anaesthetic option for abdominal laparoscopic surgery. Laparoscopic surgery being performed in selective patients under spinal or epidural anaesthesia have started to appear (Sinha et al, at 2008). Specially in developing countries like Bangladesh open Cholecystectomy is frequently performed procedure because lack of laparoscopic Cholecystectomy equipment or expertise. However, lap chole remains the gold standard for symptomatic gall stones due to short operation time. Early mobilization , less post-operative pain, short hospital stay and early return to work. Spinal anaesthesia as an alternative to GA was first used by Hamad MA et al for lap chole. It is therefore expected that SA can be as effective in small incision Cholecystectomy as in laparoscopic cholecystectomy. In fact , SA with lesser effect on

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respiratory functions, better post operative pain control, reduce surgical stress and lower incidence of deep venous thrombosis, can be a better choice than GA. In this study we compare the effectiveness of SA for small incision Cholecystectomy versus GA in term of post-operative pain, analgesia requirement, respiratory complication, length of hospital stay.

MATERIAL AND METHODS :

The prospective study in Gonoshasthaya samaj vittik medical college hospital in a period of 2 years from May 2011 to July 2013.

PATIENTS SELECTION :

Newly diagnosed cholelithiasis reported to the department for surgery & who meet the following criteria were enrolled in the study :

- ASA Physical status I , II
- Age between 18 to 80 years

Exclusion criteria were as follows :

- Acute inflammatory process (cholecystitis,pancreatitis or cholangitis)
- Suspected / confirmed bile duct stone
- Anxiety prone patient
- Bleeding diathesis
- Local spinal deformity.

METHODOLOGY :

patients admitted with the symptomatic gall stone diseases were randomly divided into 2 groups. SA group represent those patients randomized to small incision Cholecystectomy under SA & GA group having same surgery under GA. All patients were explained about the study and written informed consent obtained. All patients were interviewed by the anaesthesiologist in a pre-operative visit. Anaesthesiologist instructed them about possible intra-operative events while under SA like vomiting, shoulder pain & anxiety. Conversion of GA would be done, if required. For all participating patients pre-operative preparation was same in both groups. On patients arrival in the operating room, non invasive monitoring (ECG, HEART RATE, ARTERIAL BLOOD PRESSURE, RESPIRATORY RATE & PULSE OXYMETRY) was established and 500-700 ml Ringer lactate solution was commenced intravenously.

Patient randomized to spinal anaesthesia were injected with 3-4 ml of hyperbaric Bupivacaine hydrochloride intrathecally at L3-L4 intervertebral space under aseptic condition. Placement of patients were in sitting position, after injecting 0.5% bupivacaine, patients were placed in supine position with a head down position. After the surgeon confirmed anaesthesia at T4 level by pin prick, "go ahead" was given. If the mean arterial pressure dropped below 60 mm of hg, 3 microgram of Ephedrine was administered. During the procedure, anxiety was treated by 5 mg Diazepam intravenously & pain with 50 mg Pethidine intravenous boluses.

In patients randomized to receive GA, induction was done with 2-3 mg/kg propofol, vacurium 0.01 mg/kg, pethidine 0.5 mg/kg & thiopental 5 mg/kg 2.5%. balanced anaesthesia was then continued with Halothan (according to MCG value) , Oxygen and Nitrous oxide(N₂O).

All patients of GA group were hemodynamically monitored continuously during the operation. Residual neuromuscular block was antagonized with 25 mg of Neostigmine and 1 mg Atropine sulfate at the end of surgery.

Small incision Cholecystectomy was performed by right sub-costal transverse incision of 3-6cm size. Muscles were retracted medially; then traditional Cholecystectomy done by fundus first method.

The main end points of the study were efficacy, safety, post-operative pain free interval, analgesia requirements, respiratory complications and length of hospital stay in both the groups.

Post-operative morbidity was assessed on a preformed proforma which was filled in by the senior nurse on duty.

Time of first complaint of post operative pain was noted & analgesia given. Starting from pethidine, diclofenac, ketorolac, paracetamol. Respiratory problems were recorded in the GA group as presence of cough. Three doses of I/V antibiotic were given to all patients of each group. The patients were allowed orally 12 hours post-operatively. The patients were discharged from the hospital when they are fully mobilized, a febrile and taking normal diet.

RESULT :

out of 90 cases enrolled in the study, 49 cases in SA group and 41 cases in GA group analysed. The average age of patients in SA group were 46.2 years and GA group were 41.6 years. In SA group female patient were 40 and 9 were male & GA group 34 were female and 7 were male.

TABLE 1 :

Profile of patients in SA & GA group

		Spinal Anaesthesia	General Anaesthesia
Age	Average year	n- 49	n-41
		46.2 years	41.6 years
Sex	Female	40	34
	Male	09	07

The average operative time required in SA group 48 mins & GA group 66 mins. In GA group the additional time required for endotracheal intubation and reverse of the patients after surgery.

Average time of first complaint of post-operative pain in SA group was 4 hours as compared to 30 minutes in GA group. All patients of SA group remain satisfied with inj Pethidine 2 mg/kg body wt. I/M as post-operative analgesia . in GA group , patients required inj.Pethidine as well as inj.Diclofenac or inj.Ketorolac to control post-operative pain. Only 4% patients in SA group complained about respiratory problems as compared to 10% of patients in GA group. The incidence of post-operative vomiting in SA group are 4 in number and in GA group 8 that were treated with injectable Promethazin in both groups. The incidence of urinary retention was more in SA group than GA group. In SA group number was 9 & GA group 2 patients. Post-operative headache was experience by 8 patients in SA groups only. However post operative hospital stay on an average was 2.5 days in SA group & 3.5 days in GA group.

TABLE 2 : Observations of post-operative pain free interval, analgesia, respiratory problem, vomiting, urinary retention, headache and hospital stay in SA and GA group.

Post-operative variables	Spinal anaesthesia n-49	General Anaesthesia-41	P-value
Average pain free interval (hrs)	4 hours	½ hrs	P= <0.0001
Analgesia required Pethidine, Diclofenac, Ketorolac, Tramadol	Inj. Pethidine 2 mg / 1kg I / M only	Inj. Pethidine plus any two of the table	P= <0.0001
Respiratory problem	4%	10%	P=<0.251
Vomiting	n-4	n-8	P=<0.01
Urinary retention	n-9 ; F – 6, M – 3	n-2	P=<0.01
Headache	n-8	nil	P=<0.01
Hospital stay (days)	2.5 days	3.5 days	

DISCUSSION : Though regional anaesthesia for cholecystectomy has been shown to be safe, and associated with better post-operative pain control, it has not become the anaesthesia procedure of choice. GA provides adequate muscle relaxation for the surgery. however, it is associated with a number of complications, especially if the patients is suffering from co-morbid conditions. Endotracheal intubation may trigger life threatening spasm in patients of bronchial asthma that may result in need of post-operative mechanical ventilation that the cost & hospital stay make more. The prime indication for using regional anaesthesia in therapeutic laparotomy or laparoscopy is still limited to patients unfit for GA. Another reason for performing SA was preventing the potential problems of GA. In SA, per-operative hypotension may happen. We notice that liberal pre-anaesthetic hydration prevents occurrence of hypotension . in our SA group we did have hypotension in 3 cases, it was corrected with saline infusion & giving inj. Ephedrine 2 ml I/V slowly. In our study time we observed that in SA group urinary retention is more than GA group. Headache was the only complain in SA group. Intern vomiting was more in GA group.

Pain is a universal phenomenon in case of surgery. Post-operative pain is very important in open-cholecystectomy in view of the post-operative respiratory problems.

In this study we noted that small incision cholecystectomy not only can be done very

conveniently under SA but it also has advantage over GA in controlling post-operative pain as the time for first demand of analgesia was prolonged as well as requirement of opioids was comparatively reduced.

This may be because of-----

- The presence of residual analgesia for the first few hours after the completion of the surgical procedure.
- Minimal stress response associated with SA as compared to GA.
- The avoidance of endotracheal intubation related discomfort.
- The patients gain confidence and attain high pain threshold, so, they become satisfy with simple analgesics.

First complaint of post-operative pain was significantly prolonged as compared to GA group (4 hrs versus 30 mins, $P < 0.0001$)

Complications like sore throat, relaxant induced muscle pain, dizziness often create high morbidity after GA than SA. Another important advantage of SA is that other complications specific to GA, including cardiac, myogenic, and possible cerebral complications do not occur with SA.

One of the most important problems of small incision cholecystectomy under regional anaesthesia is inadequate relaxation of abdominal musculature causing difficulties in performing the operation. In our study , the surgical team was quite satisfied with the technique and claimed that the relaxation was sufficient enough to perform the operation.

At 4 weeks follow up, the majority of the patients from both groups reported satisfaction with both the anaesthetic technique and having equally good recovery. In SA group 30.6% patients told us that they were scared of the procedure at start but later on they became friendlier.

In this study, cost effectiveness was pointing out. SA group the total cost is less than the GA group. In GA group the medicines and gases used for the procedure are more and costly too. The study showed the hospital stay is more in GA group, that also cause the extra cost. The average costing in SA group is 50-60 Dollars where as in GA group the cost

is 100-110 Dollars. The study indicate that small incision cholecystectomy under SA is more cost effective than GA. This makes SA an attractive option as the anaesthesia of choice specially in developing countries.

CONCLUSION :

The small incision cholecystectomy done under spinal anaesthesia as a routine anaesthesia of choice is feasible and safe. SA is not only safe but also more effective than GA in reducing post operative pain, Analgesic requirement, respiratory problems, hospital stay. SA can be recommended to be the anaesthesia technique of choice for conducting small incision cholecystectomy in hospital set ups in developing countries where cost factor is a major factor.

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Case Report

An Enormous Strumal Cyst : A Case Report

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ABSTRACT :

Though the most common thyroid malignancy, papillary carcinoma of the thyroid gland rarely presents as a huge cervical swelling. We present the case of a cystic papillary thyroid carcinoma which presented as a slow growing huge neck mass of seven years duration.

Key Words : Neck, Papillary Thyroid Carcinoma, Cyst

INTRODUCTION :

Papillary thyroid carcinoma is the most common thyroid malignancy, the most common presentation being an asymptomatic thyroid mass or a nodule (1). A cervical cystic mass is an uncommon presentation of papillary thyroid carcinoma (2). We report the case of a papillary thyroid carcinoma presenting as a huge cystic swelling consisting of multiple inter communicating cysts.

multiple bosselations. The skin over the swelling had multiple black marks due to some previous unknown medication. The swelling was non tender, cystic in feel with distinct margins. The whole swelling moved slightly with deglutition. Cervical lymph nodes were not enlarged. There was no dyspnoea or hoarseness of voice. On indirect laryngoscopy no abnormality was detected. Thyroid profile was within normal limits. X ray of the neck showed a huge soft tissue shadow in front of the neck (Fig 2). Ultrasonography showed a cystic lesion with solid areas (Fig 3). CT scan showed a cystic SOL with multiple septations arising from the left lobe of the thyroid gland (Fig 4).

The SOL had a focus of calcification. Fine needle aspiration cytology was suggestive of nodular goiter.

Surgery was done with a horizontal Kocher's incision. On flap elevation, a huge cystic mass was found with multiple inter communicating cysts. The



Fig 1



Fig 2



Fig 3



Fig 4

CASE REPORT :

A 40 year old female patient presented with a huge swelling in front of the neck of seven years duration. Initially the swelling was small in size, located in the thyroid region which gradually enlarged to its present size (Fig 1). On examination there was a huge swelling (18 × 16) cm in front of the neck with

cystic swelling was found to be arising from the left lobe of the thyroid gland. The aspirated fluid was serosanguinous in colour. All the cysts were inter communicating. The posterior aspect of the largest cyst had a firm solid mass which was fixed to the left lobe of the thyroid. There was no infiltration of the surrounding structures or lymphadenopathy. Total thyroidectomy was done alongwith removal of the cystic mass. Histopathology of the specimen revealed papillary carcinoma of the thyroid. Post

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operative period was uneventful. The patient is currently under follow up and has been sent for radioiodine ablation therapy.

DISCUSSION :

Papillary thyroid carcinoma is a slow growing neoplasm which explains the relatively long duration in some patients (2). In the present case the swelling existed for more than seven years. The long duration of such cysts in patients can lead to incorrect provisional diagnosis of benign cyst (2, 3). Papillary thyroid cancer typically occurs in the middle aged women in the third and fourth decades (1). Our patient was in the fourth decade when the lesion was detected.

Sonographic features of cystic papillary thyroid carcinoma include multiple or solitary cyst with internal septation, internal nodules and punctuate calcification (2). Histologically the internal septations are either caused by solid, papillary structures on fibrovascular stalks, by connective tissue filaments or by the remaining streaks of lymphoid tissue (residual after the liquefaction necrosis or accompanying internodal haemorrhage) (2). The papillary structures on fibrovascular stalks are especially known to be typical for papillary thyroid carcinomas and are associated with psammoma bodies and paucity of colloid in the primary tumors (4).

FNAC is less sensitive in the diagnosis of cystic neck masses having a false negative rate ranging from 50% to 67% (5). In another study (6), FNAC had false negative rate of 45% in diagnosing cystic papillary thyroid carcinoma. Ultrasound guided FNAC that can obtain material from the wall and solid part of the cyst increases the accuracy of FNAC (7). Aspirated fluid thyroglobulin may help to differentiate cystic thyroid carcinoma from benign cystic lesions.

Adequate surgery by removing the cyst, all of the involved thyroid tissue and accessible involved lymph nodes is essential for better prognosis. Frozen section biopsy has a role to play in the planning of treatment. Post-operative radio isotope scanning can identify remnants of thyroid tissue and metastasis. Post-operative radioiodine ablation of thyroid remnant with suppressive thyroxin dose is required to reduce recurrences. Follow up with serial thyroglobulin estimation can help in detecting early recurrences or metastasis (1, 2).

To conclude, unusual presentations of papillary thyroid carcinomas should be kept in mind when we encounter solitary or multiple cystic masses in the neck. Complete cyst excision with total thyroidectomy and lymph node dissection provides a good prognosis.

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Case Report

Unusual Case of Intussusception in Adult Female with a Newer Technique of fixing Caecum

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Abstract :

A 40 years old female was admitted for acute intestinal obstruction.

She was on ATT for last 6 months. On investigation diagnosis of obstruction was confirmed no lump was palpable per abdomen during investigation she was reported HIV positive.

She was explored after five days of admission considering as a case of Koch`s abdomen but turned out to be a case of ileocolic intussusceptions inflamed appendix was a trigger intussusceptions was reduced the appendix was mobilized and used for fixing caecum to prevent recurrence

Key words : intestinal obstruction , intussusception, caecopexy

Introduction :

Intussusception is common in children below one year of age but not in adults. Most common cause of intussusception in elderly is malignancy. We came across an unusual case of



intussusceptions in elderly female where trigger was inflamed appendix. Patient turned out to be HIV positive. Caecopexy is suggested to fix caecum to

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prevent recurrence by stitching caecum to the peritoneum or terminal ileum to ascending colon making ileocaecal junction as an acute angle, these methods failed so we used appendix to fix caecum.

Case history :

A 40 years old female was admitted on 24 April 2013 complaining of pain in abdomen on and off for last 15 days. 3 days before admission intensity of pain increased. It was associated with vomiting and constipation.

Patient had undergone tubectomy 12 years back. She was on Antitubercular treatment for 6 months. Her husband died of Pulmonary Tuberculosis

Physical findings on admission

Patient was dehydrated and had tachycardia. B.P. was 100mmHg. Abdomen was distended but no visible peristalsis or lump seen. On palpation: There was no localized tenderness, guarding or lump. Liver dullness not masked, no free fluid, BS present P/R:

This photograph shows congested loop of small bowel an intussusceptions marked with arrow

No blood or mucous found

Patient was put on conservative treatment. Initially she responded, but after 2 days she again developed similar complains. Hence it was decided to explore abdomen as a case of intestinal obstruction.

Investigations:

Hb 6gm/dl, TLC- 4500mm³ with lymphocytosis, Urine NAD X-Ray Chest: Right side parenchymal lesion X-Ray Abdomen Standing: 2-3 air fluid levels HIV Reactive Patient was operated on 28th april

Operative findings:

Bowel loops were distended. They were gradually delivered out of peritoneal cavity. A mass was felt in right hypochondrium, which was delivered with difficulty. Intussusception could be reduced manually, it turned out to be Ileo-Caeco-Colic Intussusception. Appendix was inflamed and appeared to be the triggering point.

Bowel was viable, no serosal injury occurred. Appendix was mobilised, mesoappendix ligated and divided, without ligating base of the appendix. This appendix was used to anchor caecum to peritoneum. Appendix was pulled out through a stab incision in the skin in Right iliac fossa. It was fixed to peritoneum near its base and fixed to skin. Redundant appendix excised and removed. Margins of stump everted and fixed to skin.

Post Operatively recovery was slow due to paralytic ileus. Patient Discharged.

Discussion :

Intestinal obstruction is a day today problem in surgical practice. The important causes of recurrent intestinal obstruction in elderly are Adhesions, Internal Herniation, Volvulus, Tuberculosis and Malignancy. Intussusception in elderly patients is a rare cause of acute intestinal obstruction. Recurrent intussusception may occur due to neoplasm. This remains a real challenge to make preoperative diagnosis of the cause. Even on exploration at times it becomes difficult to find out the exact pathology responsible for obstruction.

In the present case we thought of adhesions or tuberculosis responsible for obstruction Adhesion because she had undergone tubectomy operation. Tuberculosis as she was on ATT for 6 months with parenchymal lesion in the lung. Ileocolic intussusception was found on exploration, inflamed appendix being the trigger. There was no growth in the caecum or colon. Intussusception in elderly being

chronic mostly due to neoplasm. Incidence is reported to be 2 to 3 cases per 1 million population annually REF (<http://www.jmedicalcasereports.com/content/3/1/61>)

Clinically, there were no features to suggest intussusception.e.g. lump in abdomen, red currant or white currant jelly on rectal examination. No mass felt on digital rectal examination. Hence intussusception was not considered as a cause of intestinal obstruction preoperatively.After successful manual reduction of intussusception,the standard teaching to prevent recurrence is CAECOPEXY (fix caecum to the parietal peritoneum).this is done by number of different techniques e.g. to fix the caecum to the peritoneum or terminal ileum is stitched to the ascending colon making ileocaecal angle acute. Results of these procedures are debatable due to lack of uniform results reported.

In this patient we used appendix to anchor caecum to the peritoneum as appendectomy was indicated in this patient. This procedure has been tried successfully in 5 other cases hence we recommend this technique to fix caecum to the peritoneum in cases of intussusception.

Intussusception is reported to be more common in HIV infected patients due to the increased peristalsis in intestine due to entral pathology <http://www.jmedicalcasereports.com/content/3/1/61>)

The interesting feature of our case is that our patient did not have a documented HIV infection before admission. We are unable to correlate the clinical picture, operative findings with recently detected HIV infection.

Conclusions :

Intussusceptions in adults is a rare problem. It has been shown to have some correlation with HIV infection which may have a silent course. Intussusception and other GIT manifestations might be the first clinical sign of HIV. In this patient, surgical reduction of intussusception was possible and newer way of caecopexy has been described with good results.

Reference :

(<http://www.jmedicalcasereports.com/content/3/1/61>)

Should Rural Surgeons Re-consider Laparoscopic Hernia Surgery? Initial Experience with Lift Laparoscopic Hernia Surgery

J. Gnanaraj

INTRODUCTION

Surgery for inguinal hernia is one of the most common surgeries performed by surgeons in rural areas. The incidence of hernia could be as high as 175 per 1, 00,000 a year in Sub Saharan Africa [1]. Less than 40% of these are treated by surgical operations [2]. Network of doctors in India called Mednet India estimates that 25% of men and 2% of women might develop hernia in India [3].

The high surgical cost is one of the main reasons for the rural patients not choosing to have surgical treatment. Several attempts have been made to reduce the cost of surgical treatment in rural areas. For instance mosquito net clothes were used instead of the expensive prolene mesh for surgery [4]

HISTORY OF HERNIA REPAIR SURGERY

The first recorded surgery for hernia was performed by Amyand in 1735 [5]. It is interesting to note that historically the surgery for hernia proceeded from superficial to deep repair of weak structures. Czerny performed high ligation of the hernia sac and closure of the inguinal ring [6]. Then Hendry Orlando Marci went down to narrow the deep ring [7].

Bassini in 1888 posted a milestone in the history of not only hernia surgery but of all surgery when he reported a reduction in the recurrence rate from 100 to 10% with his operation which was a unique combination of understanding of anatomy and application of surgical thinking and technique [8].

This 10% recurrence rate was achieved at a period without antibiotics, primitive anaesthesia and when patients suffered their hernia to giant size before submitting to surgery. Over nine decades Bassini's tissue repair procedures – with several modifications (Halsted, McVay, Tanner, Shouldice....) has helped preserve useful life in hundreds of thousands cases [8].

There are three landmarks in the history of repair

of inguinal hernia [8].

1. Tissue repair Eduardo Bassini 1888
2. Onlay mesh Irving Lichtenstein 1984 (tension-free) repair
3. Laparoscopic Ger, Shultz, hernia repair Corbitt etc 1990

The idea of repair of inguinal hernia from the posterior or pre-peritoneal side was suggested as early as 1743 by Bates and popularized by Stoppa in France [7]. The concept of tension free repair and IPOM [Intraperitoneal Onlay Mesh] now is considered the best option for hernia repair.

WHY NOT LAPAROSCOPIC SURGERIES?

If laparoscopic surgery for inguinal hernia is so good, why is not everyone doing it? For several reasons, unlike laparoscopic cholecystectomy, which had a market penetration of 93% within 3 years, laparoscopic hernia repair after 16 years has enjoyed or rather suffered, a market penetration of 5-15% in the developed world [9]. Given the added benefit of reduced pain and early mobilization it is a good procedure in expert hands.

The National Institute for Health and Care excellence in UK recommends the procedure by trained surgeons [10]. Despite this only 4% of hernias UK are carried out laparoscopically and it is similar in Europe except in Germany where 30% of the hernia surgery is carried out laparoscopically [11].

However, these benefits are outweighed by several factors like its longer learning curve, higher cost, need for general anaesthesia. Today laparoscopic repair accounts for 5 to 15% of all hernia repair in the developed world and a miniscule percentage in the developing world [8].

WHAT ABOUT RURAL SURGEONS?

It is very easy to conclude that laparoscopic surgery has no place in rural surgery considering the

long learning curve, the high cost and the need for general anesthesia. What would the rural surgeons do if the high cost and the need for general anesthesia is negated?

We present the possibility of doing laparoscopic hernia repair using Gasless or lift laparoscopic surgical technique.

THE METHOD :

The patient is placed supine after spinal anesthesia . Two towel clips are used to hold the lower half of the Umbilicus and an incision is made through the lower half. It is widened to pass a finer comfortably and the using this as the guide the Lift apparatus is placed and anterior abdominal wall is lifted under vision. After sufficient time has elapsed the patient is placed in a steep head down position. Sometimes additional 5 mm ports are placed. Combinations of open and laparoscopic surgical instruments are used to carry out the TAPP [Trans Abdominal Pre - Peritoneal] hernioplasty. Use of traditional needle holders for suturing [Figure 1] and gauze piece on holders for blunt dissection makes the procedure easier.

RESULTS :

The results of the first 12 surgeries performed by this method might not be very attractive but would definitely improve with time. A large hernia had immediate post - operative recurrence and six of the 12 surgeries took more than 2 hours to perform. There was no surgical site infection. However, two of the patients with thin abdominal wall the surgery was performed with single incision in about 40 minutes of operating time.

DISCUSSION

Laparoscopic hernioplasty offers significant theoretical advantage. The advantages however did not translate to everyone adopting the technique because of the great disadvantages. However, the use of Lift laparoscope negates the disadvantages and rural surgeons could start doing laparoscopic hernioplasties if they have sufficient training.

NOTE :

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SURGERY

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The contribution of rib fractures to chronic pain and disability.

Gordy S. et al

The contribution of rib fractures to chronic pain and disability is not well described. Two hundred three patients with rib fractures were followed for 6 months. Chronic pain was assessed using the McGill Pain Questionnaire Pain Rating Index and Present Pain Intensity (PPI) scales. Disability was defined as a decrease in work or functional status. The prevalence of chronic pain was 22% and disability was 53%. Acute PPI predicted chronic pain. Associated injuries, bilateral rib fractures, injury severity score, and number of rib fractures were not predictive of chronic pain. No acute injury characteristics were predictive of disability. Among 89 patients with isolated rib fractures, the prevalence of chronic pain was 28% and of disability was 40%. No injury characteristics predicted chronic pain. Bilateral rib fractures and acute PPI predicted disability. The contribution of rib fractures to chronic pain and disability is significant but unpredictable with conventional injury descriptors.

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Systematic review and meta-analysis of wound drains after thyroid surgery.

Woods RS et al

Drainage after routine thyroid and parathyroid surgery remains controversial. However, there is increasing evidence from a number of randomized clinical trials (RCTs) suggesting no benefit from the use of drains.

A systematic review and meta-analysis was performed according to PRISMA guidelines. A literature search was carried out, and RCTs comparing the use of drains versus no drains in

patients who underwent thyroid or parathyroid surgery were included. Trials including patients who underwent lateral neck dissection were excluded. Methodological quality was graded and data were extracted by independent reviewers. Risk ratio (RR) or mean difference (MD) with 95 per cent confidence interval (c.i.) was calculated and heterogeneity was assessed. Twenty-five RCTs were included in the meta-analysis comprising 2939 patients. There was no significant difference between the two groups in rate of reoperation for neck haematoma (RR 1.90, 95 per cent c.i. 0.87 to 4.14), ultrasound-assessed fluid volume on day 1 after surgery (MD 2.30 (95 per cent c.i. -0.73 to 5.34) ml), wound collection requiring intervention (RR 0.64, 0.38 to 1.09) or not (RR 0.93, 0.66 to 1.30), transient voice change (RR 2.33, 0.91 to 5.96) and persistent recurrent laryngeal nerve palsy (RR 1.67, 0.22 to 12.51). Length of hospital stay was significantly greater in the drain group (MD 1.25 (0.83 to 1.68) days), as were wound infection rates (RR 2.53, 1.23 to 5.21) and pain score measure using a visual analogue scale from 1 to 10 on day 1 after surgery (MD 1.46 (0.67 to 2.26) units). The results indicate that drain use after routine thyroid surgery does not confer a benefit to patients.

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Suspected appendicitis in pregnancy.

Flexer SM et al

Acute appendicitis is one of the most common acute surgical presentations. However investigation and management is sometimes confounded in a pregnant patient. Appendicitis in pregnancy is often managed jointly by both the surgical and obstetric teams, which can lead to discrepant pathways, which may be detrimental to the patient. This review sets out to identify the normal physiological changes of pregnancy that pose diagnostic and therapeutic difficulties to the clinician, assess the more common

differential diagnoses and review the current evidence to assist achieving a swift diagnosis and appropriate treatment. A literature review of the investigation and management of suspected appendicitis in pregnancy was undertaken. Guidelines by the relevant surgical, obstetric and radiological societies were also reviewed.

There remains no consensus on the best diagnostic pathway for appendicitis in pregnancy; which is unsurprising given that appendicitis in non-pregnant patients can yield diagnostic conundrums. However this review identifies a role for MRI scanning as a useful adjunct in these patients. The increasing role of laparoscopy in these patients is also becoming more apparent. Appendicitis in pregnancy remains a complex problem necessitating a close working relationship between various specialties to achieve the best outcome for mother and fetus.

Br J Surg. 2014 Apr;101(5):546-9.

Liver retraction using n-butyl-2-cyanoacrylate glue during single-incision laparoscopic upper abdominal surgery.

Wu S. et al

Liver retraction is critical in single-incision laparoscopic upper abdominal surgery. Several techniques have been reported. Some need an additional port, whereas others are complicated and time-consuming. n-Butyl-2-cyanoacrylate (NBCA) glue was applied to bond the left lateral lobe of the liver to the diaphragm in different single-incision laparoscopic upper abdominal procedures. Liver adhesion time and duration of operation were recorded, and preoperative and postoperative liver function tests carried out. All procedures were completed successfully without additional ports or special instruments. The technique provided adequate workspace and a clear view. Mean liver adhesion time was 1.5 min. The maximum operating time was 310 min. Levels of alanine and aspartate aminotransferases were raised on day 1 after surgery but had returned to normal by day 7. Creating adhesion between the left lateral lobe of the liver and the diaphragm using NBCA glue is a simple, safe and effective way of achieving liver retraction in single-incision laparoscopic upper abdominal surgery.

OBSTETRICS & GYNECOLOGY

Journal of Clinical Endocrinology & Metabolism.
Subclinical Hypothyroidism in Pregnancy Usually Transient

Three-quarters of women with subclinical hypothyroidism during pregnancy had normal thyroid function 5 years later, in a new study published in the December issue of the "Increasing numbers of pregnant women with milder forms of thyroid dysfunction are being treated with L-thyroxine, and we have demonstrated that many of these women are likely to be able to stop L-thyroxine after pregnancy," write the researchers, led by Beverley M. Shields, University of Exeter, UK. "Our findings suggest that if L-thyroxine is prescribed for subclinical hypothyroidism, thyroid function should be reassessed after pregnancy to confirm whether continuation of L-thyroxine is necessary."

They suggest that women with mild thyroid dysfunction should be reevaluated about 6 weeks after delivery, based on current guidelines that recommend this follow-up time for women with a diagnosis of actual clinical hypothyroidism before pregnancy. "This would seem a reasonable point for reassessment in women with subclinical hypothyroidism diagnosed and treated during pregnancy," they write.

Based on trimester-specific reference ranges for thyroid hormone levels, as many as 15% of pregnant women are being diagnosed with subclinical hypothyroidism, Shields and colleagues explain. Mild thyroid dysfunction has been linked to impaired neuropsychological development in offspring and adverse obstetric outcomes — including miscarriage, premature birth, gestational hypertension, and neonatal death — and so guidelines recommend treatment with L-thyroxine.

Specifically, the recent Endocrine Society guidelines recommend that all pregnant women with subclinical hypothyroidism be treated with L-thyroxine. The American Thyroid Association guidelines recommend that pregnant women with subclinical hypothyroidism and detectable thyroid-peroxidase antibodies receive L-thyroxine.

However, there are no data to indicate whether treatment should be continued long term and is not addressed in current guidelines.

The researchers hypothesized that most cases of subclinical hypothyroidism and maternal hypothyroxinemia resolve after pregnancy, because the physiological changes in pregnancy that predispose women to thyroid deficiency are likely to be temporary.

They analyzed data from 523 healthy pregnant women with no known thyroid disorder recruited into the Exeter Family Study of Childhood Health between 1999 and 2004.

Levels of thyroid-stimulating hormone (TSH), free T4, free T3, and thyroid peroxidase antibodies were determined at 28 weeks of pregnancy and, on average, 4.9 years after delivery.

During pregnancy, 65 of the 523 women (12.4%) had subclinical hypothyroidism (TSH > 3 mIU/L). At

the 5-year follow-up, 49 of the 65 women (75.4%) who had subclinical hypothyroidism during pregnancy had normal thyroid function.

Only 2 of 44 women (4.4%) with hypothyroxinemia during pregnancy had high TSH levels (> 4.5 mIU/L) after pregnancy.

Among women with subclinical hypothyroidism during pregnancy, those who also had thyroid-peroxidase antibodies during pregnancy were more likely to have persistently elevated TSH after pregnancy.

Because there is a high risk of recurrence of subclinical hypothyroidism during a subsequent pregnancy, women should be tested for thyroid function early on during future pregnancies, the researchers advise.

President's address at the 22nd Annual conference of ARSI at Midnapore

Respected Swamiji, Dr. Binayak Sen, Dr. De, Chairman of the organizing committee, dignitaries in the dais, Prof. Sukumar Maiti, Organising secretary, respected seniors and my dear friends and colleagues

Indeed it is a great honor for me to stand before you as president of ARSI at this very significant historical venue of Midnapore, famous not only for its innumerable prehistoric sites including the famous ancient bustling port Tamralipta near present day's Tamluk but more than that Midnapore has glorious recent past. Midnapore is legendary for its tremendous contribution to the history of Indian freedom movement. It has produced a seemingly endless list of martyrs and freedom fighters that had bravely faced the gallows to free our motherland from the yokes of bondage. Willingly, they sacrificed themselves in the freedom pyre. Many names come in my mind. To name a few Rishi Rajnarayan Basu, Khudiram Bose and Satyendranath Basu, Hemchandra Kanungo, Birendranath Sasmal, revolutionaries like Bimal Dasgupta, Jyothi Jibon Ghosh, Pradoot Bhattacharya, Prabhakangsu Pal, Mrigan Dutta, Anath Bandhu Panja, Ramakrishna Roy, Raja Kishor Chakraborty, Nirmal Jibon Ghosh. They all are the sons of the soil of Midnapore. I salute them and remember them with reverence.

Truly speaking, at this moment I have a mixed feeling in my mind; some thrill and more of nervousness or trepidation. Thrill, for becoming the 9th president and that too from a different specialty- a gynaecologist in a surgeon's den although ARSI does not discriminate between a surgeon and a gynecologist or an orthopedician or an ophthalmic surgeon. All have equal value. But more than that a lot of trepidation that has casted its effect on me, thinking about my ability to match my illustrious predecessors, whose vision, hard work and commitment made rural surgery movement a successful one and made it recognized as a specialty in our country. I fondly remember them with reverence and feel myself fortunate to get the opportunity to work with each one of them. They are my illustrious predecessors Dr.

Balu Shankaran, Dr. NH Antia, Dr. Tongaonkar, Dr. Sitanath De, Dr. R.D. Prabhu, Dr. Banerjee, Dr. K.C. Sharma, and Dr. Sanjay Shivade. It is their efforts that have made ARSI to stand today on a strong pedestal. They steered this association safely from its juvenile state when it had to face a certain amount of disapproval, if not hostility from its own profession.

ARSI started its journey in 1992 under the guidance of Dr. Balu Shankaran, famous orthopedician and Ex. D.G.H.S. GOI and Dr. N. H. Antia, Senior Plastic Surgeon, Director F.M.R. and adviser to GOI on health related policies along with a group of seven practitioners. They had a vision and strong believe that future of India's health care lies in developing rural surgery and since then through its members it worked relentlessly with its mission to provide good basic surgery at affordable cost in a humane manner at the doorstep of the rural population and peri-urban slums.

Today we are holding 22nd annual conference of this organization and with certainty we can say that by now this organization has achieved its adult hood and established its credibility in many fronts. The world is looking at the work done by the rural surgeons of India as a model in public health care which is both affordable and sustainable and not tied to corporate profits. As the world grapples with the cost of privatized health care facilities and the pitfalls of insurance, rural surgeons here have shown that it is possible for doctors to stop being driven by money and return to the values of their profession instead.

Today ARSI, to a great extent, has been able to convince health authority of our country that rural surgery is a felt need and the solution to the country's basic surgical need more so for rural India which Dr. Antia use to call Bharat. Rural surgery movement made them recognize "rural surgery" as a specialty. DNB in rural surgery course is the result of that recognition. ARSI's philosophy and its view point of solving the basic surgical need has been shared, acknowledged and adopted by surgeons of other need based countries. Formation of IFRS is the

response to that philosophy. There are many overseas personalities whose efforts jointly together with ARSI's effort made it possible. In this regard the first name which comes to my mind is DTC (German society for tropical surgery), whose contribution to ARSI's growth and spreading the concept of rural surgery was enormous. They sponsored our members as well as members from other developing countries to attend regularly their meeting in Germany, as well in our country to exchange and share views amongst us. It will not be an exaggeration to say that this exchange of surgeons from various need based countries had showed the seed of internationalism in our thought. DTC was also responsible in a big way to spread the concept of rural surgery by sending our bulletin to many countries across the world. I humbly express my gratitude to DTC and specially Dr. Gabriele Holoch and Dr. Thomas Moch for their valuable help. My gratitude also to Dr Awojobi Oluyombo, presently the secretary of IFRS, who was not only instrumental in formation of IFRS, but also spreading the concept of Rural surgery uncompromisingly in his own country and other part of the world. He was successful in convincing his own colleagues about the need of implementing the concept. Formation of ARSPON in Nigeria under his leadership is the testimony of that endeavor. Though there are many to be named from overseas I would like to mention at least two more names whose contribution was unfathomable. Dr. Peter Rimst from Holland, presently the treasurer and a silent worker of IFRS and the other one was my close friend and also was past president of IFRS, Late Dr. Passience Kibatata from Tanzania. His passion and commitment for rural surgery was unmatched. Those who had attended IFRS conference in Tanzania must have realized that. His loss is a great loss for all of us. My sincere gratitude to all of them. I also take this opportunity to thank delegates from Bangladesh particularly Dr. Kader, Dr. Sohel Ali, Dr. Iqbal Hossain and many others who few years back made their own association, joined IFRS platform and expressed their desire to hold next International Conference of IFRS in their country. I am very happy to note that they have come here in large no. to attend this conference.

At this juncture I shall be failing in my duties if I do

not mention two more personalities who, staying in the background like a playback singer kept the activities of ARSI alive, DR.Swaran Arora and Prof. Dr. Tehemton Udwadia. There cannot be another opinion about their keen interest in rural surgery. Dr. Arora volunteered and single handedly organized National conference in Pune that too immediately after attending the IFRS conference in Tanzania where again she took the entire responsibility on her shoulder to lead the largest delegates of Rural surgeons from India and again within a year time organized the international conference of rural surgery in Rajasthan, where we had the pleasure of having maximum no of foreign delegates from various countries. I humbly acknowledge the sincere effort of Dr. Udwadia in bringing out a special issue on rural surgery (unprecedented) in ASI journal (I am privileged to have my article in it as an obstetrician and gynecologist) and taking rural surgeons in Berlin conference in the face of widespread opposition to highlight the innovation, appropriateness, spirit of adventure and advances of the Indian rural surgeon to the international surgical community. All these are testimony to his fondness for ARSI and rural surgery movement. Every time, whenever I requested him to attend our conference he always responded positively in spite of his busy prior engagement. And now, I was told that he is in touch with Ratan Tata to get him interested in rural surgery affairs.

Dear colleagues even before ARSI was born many of you were aware of WHO's declaration - Health for all by 2000AD in Alma-Ata conference held in 78. Primary health care was thought to be the key to achieve that goal. Regrettably because of various reasons that goal was not achieved. Then we heard of the Millennium Development Goals (MDGs) in 2000 consisting eight international development goals, supposed to be achieved by 2015. Unfortunately there is general consensus in the international Community that while there has been some progress in achieving the MDGs, the majority of Goals will not be met by 2015. On the other hand the prophetic address by former WHO Director-General Halfdan T Mahler "Surgery and Health for all" has echoed without response since 1980. Even today the reality is that estimated more than 2 billion people lack access to surgical services when needed. The

devastating effects of insufficient surgery added with poverty traps have already made a huge epidemiological shift with vast demand of surgical care need. And with that shift we can no longer afford not to treat conditions like abdominal emergencies, injuries, burn, obstructed labor, cataract, clubfoot, cleft palate, appendicitis, Hernia, trauma and many more. Jim Yong Kim, President of The World Bank, underlined current challenges in the delivery of surgical care: “the poor suffer due to a shortage of skilled personnel, inadequate infrastructure, and a pay-as-you-go approach to financing surgical care”. For obvious reason present scenario propounds a strategy for closing the global surgery divide. We do not know what the future is there in store for. We do not know whether global surgery will face a turning point in post 2015 agenda in Sustainable Development Goals (SDGs), though there is also great cause for optimism. But we certainly know and realize that to address today's anachronistic gaps of surgical coverage, one of the primary requirements is good surgical skills and operative management with basic infrastructure. Therefore my humble appeal to my colleagues; let us develop that skill more and more, develop that infrastructure with our innovative skill, teach others as and when we get the opportunity and practice more and more those essential surgeries so that surgical coverage can be provided to those who need it and thus humbly contribute to close that gap of surgical divide. Essential surgery is an important challenge for the coming years. It is a basic, inexpensive, surgical procedure that can prevent lifelong disabilities and can be performed by a primary health care provider. These surgeries do not require advanced technology or expensive equipment commonly unavailable in basic hospitals or healthcare facilities. I am not going to talk of any particular strategy because different strategies tend to polarise around artificial dichotomies. Let the world health assembly decide on that. If needed, we will modify it as per our need of training, list and equipment. More over there is no vertical silver bullet for the complex challenges of surgery for all. Therefore just do it as much as you can, keeping human values in mind.

My dear friends, before I close I would like to quote some words of Dr. N.H.Antia. Dr. Antia used to

say, I quote “ARSI does not represent an association of second rate surgeons who provide second rate surgery to second rate citizens in second rate rural India or urban slums. It represents those who despite the training and values inculcated in our medical colleges have retained human values and courage to swim against the popular tide which has engulfed many of our profession”. (Unquote) He always felt that the originality of our members which contributes to the success of their surgery at such low cost needs to be carefully documented and the experiences exchanged.

My dear friends many old faces for obvious reason will gradually will fade away from the arena and new comers will fill up their place though it will be difficult to match the contribution of our elders. As we march forward in our journey, it is important for all of us to remember these valuable inspiring words of our great leader and do not deviate from the path.

In one of the recent discourse by a saint that I attended, the saint was explaining about 2120 attitude. He said at 211 degrees...water is hot. At 212 degrees...it boils. And with boiling water, comes steam. And steam can power a locomotive. And, it's that one extra degree that makes all the difference in life; it's that one extra degree of effort that separates the good from the great. What I love about the 212° idea is that you can use it to fit your own needs. It may be 212° service that you'd like to reinforce, or attitude, leadership, or quality to differentiate you from your competition My long continued association with ARSI made me convinced that majority of its members believes in that 212° degree attitude which they have already proved in many occasions. And with that spirit I have strong conviction that collectively we can take this organization much ahead to a greater high.

My message to my esteemed colleague is you have chosen your path superbly, and though you may not see it yet, you've already mustered the courage you had to muster, faced the fears you had to face, braved the storms, fought the battles, and exceeded every expectation you ever had for being the kind of person you hoped that you would be. Please keep it up.

I thank the organizers Prof. Sukumar Maiti and his team. Thank you all for coming and participating in our conference. Long live ARSI

“Rural Surgery – A Struggle for Human Excellence”

(On the occasion of 22nd Annual conference of ARSI a symposium on “Rural Surgery- A struggle for Human Excellence” was organized. Three of our senior most founder members namely Dr. J.K.Banerjee, Dr.R.D.Prabhu and Dr. R.R.Tongaonkar who really struggled hard against all odds to bring ARSI to present status, took part in the deliberation, though in absentia, Following are the deliberations in order of sequence.)

Concept of Human Excellence

Dr. J. K. Banerjee

At the outset, allow me to express my heartfelt thanks to the organizers, especially Prof. Maiti and also Dr. Basu, our ARSI president to make it possible for my presentation in this august conference in absentia.

Evolution of the concept of Human Excellence in the minds of rural surgeons is very important indeed for the future growth of our association, against all odds, which are being put into action by the surgical mafia of the world. Specially because our ARSI has taken the lead, and with great success, in taking this concept of human service across developing communities in an organized fashion worldwide.

The complete Man has two parts, the biological body mind complex whose science is evolving through molecular biology, and the spiritual part whose knowledge is experiential in the domain of the super conscious. And the only instrument which links both these parts in producing the outcome of the work of a complete man is the human mind.

Excellence in the evolution and development of molecular biology may be termed as technological excellence. And excellence in the evolution of the spiritual part may be termed as spiritual excellence. And as we conceive human excellence, it would be placed somewhere in between the two.

Technological excellence in the field of health and medical care has led to increase of cost of services enormously with modern medical care going out of bounds of six billion out of the total of eight billion population of the world. Corporate hospitals in our country are an outcome of this form of development. On the other hand spiritual excellence is popularising the concept of “Atmanam

Mokshartha” leads to no work and only meditation in various forms. Two great men from this part of India stood up against this form of excellence. “Atmanam Mokshartha was changed by Swami Vivekananda to “Atmanam Mokshartha, Jagat Hityachacha”. Even a sanyasi, in his opinion, had to perform some good work for the good of humanity together with meditation for his own self. And we see the result of this concept today. Every ashram aspires to develop a health and medical care wing together with its spiritual activities.

The other person, who ventured with human excellence in the field of education, was Rabindra Nath Tagore. He visualised in the early 20th century, the advent of western education in our country. In India, it was piggybacking on the impact of the dehumanising industrial revolution which was then raging across Europe with England in the lead. Universities, Colleges and Schools with western form of education are creating babus with slavish mentality in India. And as a revolt to this form of education, he formed the Vishwa Bharati University at Shantiniketan. A university named “universal India” in Shantiniketan is an abode of peace where he combined the gurukul system of spiritual based education with western education which even today is famous across the world. He thus laid the foundation of developing the concept of human excellence in the field of education.

Thus, both these men made enormous contributions in the field of human development through propagating the concept of human excellence as opposed to the concept of technological or spiritual excellence.

And without any special effort, as we waded through several steps in the last 21 years evolving rural surgery to its present status, we inadvertently walked in the same path of human excellence in the field of health and medical care. My colleagues, Dr. Prabhu and Dr. Tongaonkar, will describe the saga of this struggle.

Briefly speaking, the quest for thus defining human excellence is a long one in human history. Starting from Aristotle the Greek philosopher, down the Middle Ages up to the present day, everyone basically pointed towards the quality of work or Karma enhancing the growth of not only the body-mind complex and its associated skills, but also the spiritual dimension of the COMPLETE MAN. While the skills are guided by a structured curriculum of the universities, the spiritual dimension is guided by its

appropriate application with a totally unstructured curriculum mainly through the gurukul method of teaching. The student learns the skills from the teachers and also imbibes his spirit of service, ethics and empathy for the patient leading to practical application of "Bahujana Hitaya Bahujana Sukhaya" of the community. Power of discrimination and strength of mind and character are very important factors for both the teacher and the taught.

And as we waded through the many setups of rural surgery across India, in the last twenty years, we found the same story everywhere. Evolution of human excellence in the arena of health and medical care is going beyond the domains of structured university curricula for Bahujana Hitaya Bahujana Sukhaya.

Reality of The Struggle

Dr. R. R. Tongaonkar

As per the Dictionary meaning 'Excelling' is 'To surpass others or be superior in the same respected area or to do extremely well'.

50 years back I read two sentences from Swami Vivekananda's pocketbook 'Thus spake Swami Vivekananda'. One was, "Know that you are the Creator of your own destiny" and second "Get up and set your shoulder to the wheel. How long is this life for? As you have come into this world, leave some mark behind. Otherwise where is the difference between you and the trees and stones, they too come into existence, decay and die!"

I am following these valuable teachings throughout my life to achieve 'Human Excellences' for which I am also rewarded with many honors in the form of life time achievement awards, President-ship of International Federation of Rural Surgery etc. This shows that by doing good works both Rural Surgeons and rural surgery can get recognition and they are in no way inferior to surgery or surgeons anywhere in the world and therefore a rural surgeon should not underestimate himself only because he is practicing among rural masses.

In the process of achieving that excellence many obstacles or problems come on the way, especially from Govt. authorities, legal authorities or the existing

Laws or from our own colleagues or public? I have experienced all of them. In the next few paragraphs I shall mention about some of my achievements, struggle to reach that goal and how I overcame them.

The first and foremost among my achievement is the 'Use of Cheap Mosquito-net as mesh' for Hernia repair. This mosquito net mesh is 4000 times cheaper as compared to commercial ly available mesh. Today this has been accepted worldwide and the material donated by me is being used in more than 20 countries including America, Africa, Asia and some parts of Europe.

For this work the highest recognition and honor came to me last year when I was invited by Govt. of Qatar for World Innovation Summit on Health (WISH) held in Doha in Dec. 2013 as the team member of 'Operation Hernia'. I was received on the Airstrip as Royal Guest and escorted by the political agent of the King of Qatar. Our innovation was picked as one of the best in 3 categories. This news was flashed on BBC London, in Newspapers across Maharashtra and was also flashed on IBN, Lokmat national channel of Indian television. What more a rural surgeon can expect struggling to get excellence in his life?

This was indeed a great moment of my life, a

sense of fulfillment for achieving the success and getting recognized. But to reach to this level, it was a story of intense struggle for 10 years. Here is a brief account of that struggle:

Way back in year 2000 Dr. Brahma Reddy from Coornool, Andhra Pradesh gave me the idea. He described the material which he was using 'Nylon'.

But on analysis the cloth turned out to be co-polymer of Polypropylene and Polyethylene and not Nylon. For some reason the cloth was not available easily and with great difficulty I found similar cloth from market and spent rupees twenty thousand for analyzing it. On detail analysis it turned out to be Low Density Polyethylene (LDPE) with melting point 1220 C.

In 1958 Francis Usher used Marlex Mesh (Polyethylene) for the first time. His remark was 'It was good, but difficult to sterilize'. Surprisingly I found that our material (Low Density Polyethylene (LDPE) can be sterilized in vertical small autoclaves used commonly by the rural surgeons across the world where temperature goes up to 121 degrees. In the process it also increases the tensile strength (almost double) making the mesh stronger.

This reference of Francis Usher helped to answer the commonly raised objection 'Have you taken permission from ICMR?' Fortunately the cloth was already used.

Again question was raised about animal experiment. To answer and for further clarification I visited Veterinary College in Mumbai to do animal experiment. On enquiry I found it to be very costly and lengthy procedure. Therefore it was not feasible. However it was not necessary also because in 1958 Francis Usher had already used Polyethylene.

Prof. Tehemton Udwadia in -'Journal of Minimal Access Surgery 2006 stated "Not necessary to do Animal Experiments"

Now enough studies and clinical follow up have been conducted for the last 13 years in large series without any untoward side effects. Many more references are now available in world literature

With all these objections I started using mosquito-net mesh for Hernia repairs & started presenting papers on this subject. I took informed consent from patients to avoid litigations in consumer

court or civil court in case of any complication arising from the mosquito net mesh use. Regular follow up went on for any complications or recurrence by sending reply paid postcards. Records were properly kept.

For comparing the imported or commercial mesh I had to get microscopic photographs of the meshes by going to Medical College at our District place. This proved that our cloth is very similar to commercial mesh in all respects.

To popularize the use of this mesh I sent this cloth or its sample to many surgeons or medical colleges free of cost for trial and collected data from 30 centers including 5 medical colleges, by sending questionnaires to them and reply paid envelopes to receive answers.

To authenticate my work besides presenting papers in various conferences we prepared a scientific paper and sent it to Indian Journal of Surgery. Thanks to Prof. Tehemton Udwadia, the then Editor of IJS who against all odds and severe criticism, published our paper in IJS'. This was a real boost to our work.

He later popularized the use of this cloth and in 2006, invited me to Berlin (Germany) as a faculty in the world congress on endoscopic surgery to present my paper.

Later, in 2009, Prof. Andrew Kingsnorth, from U.K., the President of European Hernia Society came to know about our work and invited me to 4th world Congress on Hernia as a faculty to present paper on this subject. He was Chairman of 'Operation Hernia' Foundation, a charitable institution holding free hernia surgical camps across the world.

After my presentation and handling the piece of mesh, Prof Kingsnorth decided that this will be the mesh of choice for all 'Operation Hernia' missions (Now 'International Hernia') in future. He called it 'Tongaonkar mesh' I donated total about 200 meters of this cloth to this organization, to be used for about 30,000 patients and will save his foundation around 800,000 dollars (i.e. around Rs. 5 crores).

Even now I am sending this cloth across the world especially African surgeons and to whosoever requires it because there is no agency which can supply this cheap cloth to individual surgeons. In one

of our International conferences one Dr. Tule from Nigeria specially came to India to get this cloth!

Lastly when, the news of a free hernia camp we held at Dondaicha with foreign surgeons including Prof Kingsnorth was to be flashed on IBN Lokmat T.V., the T.V. People asked me "Have you taken license and permission from Food & Drug Administration to use this mesh? I had to read and study again Drugs & Cosmetics Act 1940 –where it was written that if one does not sell a drug (not even charging a Rupee) the Act is not applicable. I do not take a farthing from anybody for the mesh!

This is the reality of my struggle in achieving this 'Excellence'!

Another work which we are doing through our Association is trying to meet the need of blood in rural areas by doing what is known as 'Unbanked Directed Blood Transfusion' or UDBT. Way back in 1997, during our conference held in at Jhargram, one Dr. Ashok Kale from Pune informed that UDBT will no longer be allowed legally and if done, the person will be punished and put behind the bars. Therefore we will have to fight against this with the Govt. of India. Since then I started working on this subject.

I Prepared draft letters on various issues related to UDBT and sent letters to rural surgeons across the country in 2000, in 2004 and 2013 requesting them to send letters (and now e-mails) to concerned Authorities on their own letter-heads or e-mail addresses. Each time many of them responded.

But in Nov 1998 National Blood Transfusion Council (NBTC) and National AIDS Control Organization (NACO) decided not to recommend UDBT and informed me accordingly.

Some of the members said 'If there is no Blood Bank-No Surgery should be done. (Meaning even? No Delivery should be done) and doctors doing UDBT should be put behind the bars! Since then I started collecting Data on UDBT, did study of our District on the advice from FDA Commissioner, did study of the legal frame work in details and collected references regarding spot Tests and safety of UDBT. Later I published a small book-let on UDBT & distributed it in various conferences and read papers on this topic. I kept on collecting as much material from books, media and individual doctors and then took

representation to the Commissioner of Food & Drug Administration, and to the Health Minister. But nothing materialized.

We thought of going to Supreme Court for PIL, Rural Medicare Centre (RMC) Delhi arranged a meeting with Supreme Court Advocates at Delhi. One of them was Ex- solicitor General of India Shri Dipankar Gupta who agreed to study the case. I sent him files containing 120 documents. After going through the files he advised us not to go for PIL, instead approach Human Rights Commission for our demands.

Mean while Gov. allowed Armed Forces to do UDBT. On this ground we sent letters to National Human Rights Commission – briefing about UDBT, its need, present Law and " Denying Life to Rural Civilian Population" We also provided them letters from Persons saved by UDBT.

Our mentor Dr. Antia, who was chairman of the medical advisory board to NHRC, arranged my presentation to the board on UDBT in Delhi. The board agreed to recommend UDBT to the commission, but again I received a letter stating that UDBT will be diluting AIDS investigations & is not recommended. (That means objection from NACO & NBTC)

Meanwhile, Govt. came out with the idea of Blood Storage Centre. My center was the first in India but it proved to be unviable. Therefore I closed it and informed the Govt. and all our members about my views.

Our struggle continued.

Recent Developments

There were Legal cases against 2 of Association Members. Therefore I prepared a draft letter which was sent across India to be sent to the Union Health Minister. As a result 4 representatives were invited on 15th Sept 2013 by the Addl. Health secretary in charge of National Rural Health Mission (NRHM) who was convinced about UDBT and directed us to prepare 'Proposed draft for amending the Rules to legalize UDBT' which was subsequently handed over to her.

We had a great hope that after all these struggles UDBT would be legalized now.

In Oct. 2013 again only two of us, Dr. Raman

Kataria from Ballarpur and me were invited by NACO to present our plea on UDBT. As usual they refused to legalize UDBT on absolutely flimsy grounds probably because of vested interest of National Blood Transfusion Council members!

Again in Jan. 2014 we got a mail from Delhi with a newspaper attachment stating that the Drug controller General of India is going to legalize UDBT next day. We were happy to hear that but that tomorrow never came!

Now, with the changed Govt. at the center and one of our Oncologist friends as the MP I have restarted our struggle. Hope we will win one day!

Our last major struggle was against New Clinical establishment Act and minimum requirements to get registration for hospitals and also against the National Accreditation Board for Hospitals (NABH).

Now Govt. wants to standardize all the Hospitals and clinical establishments across the country by asking them to meet the minimum requirements while registering the hospital.

West Bengal was the first state to implement the 'Clinical Establishment Act'. I got the copy of it from our beloved friend Dr. Sitanath De, who has to close down his hospital in Jhargram because he could not meet the requirements.

Maharashtra State, Govt. was to amend the Bombay Nursing Home Act. I was one of the members of the committee for deciding the minimum requirements for hospital for registration. We were given 'Documents for the proposed amendments of the rules & regulations & minimum requirements'.

Most of them were almost impossible to follow.

Some of the examples

- 1) There should be 3 qualified Nurses for 5 beds.
- 2) 3 RMOs for 20 patients
- 3) The operation theatre should be minimum 400 sq. ft.
- 4) X-ray machine minimum 300 MA
- 5) Every doctor. even a G.P. or ophthalmologist must be able to perform 'Tracheotomy' So on and so forth---

A questionnaire was prepared and sent across in India. Based on this feedback and our own experience of over 40 years of running a rural

hospital, I presented the data in these meetings. Request was made to consider the present situations in rural areas and prepare the minimum standards accordingly. Some of our pleas were accepted.

Besides these achievements in our own hospital and in my personal life I tried to achieve many excellences.

1) Excellence in Clinical and Surgical Practice—I tried to learn more and more procedures and master them by reading books and journals, attending workshops and conferences and learning on homemade models prepared by me learning TURP and upper G. I. Endoscopy. At the age of 55, for a month I went to K.E.M. hospital Mumbai to learn Ultrasonography.

2) We did charitable work in the Medical, educational and other social fields through our own trust Annasaheb Tongaonkar Memorial Trust and Rotary Club of Dondaicha.

3) We arranged many free medical and surgical camps. For consecutive 30 years we arranged Free Minor Surgical camps. In the last camp held in our hospital 425 surgical procedures were done in a day with 18 surgeons working on 18 tables.

4) Through Rotary club we established an Eye Hospital, Apang kalyan Kendra with Jaipur foot center, Rotary Patpedhi (Small credit Bank),

5) In Educational field we started Annasaheb Tongaonkar Library and currier guidance center and Mandakini Tongaonkar Rotary English School and did many other charitable works.

In recognition of all these work Govt. of Maharashtra gave me Anandibai Joshi Award as the best doctor in Non-Govt. category for the year 2006.

I also received the highest honor, an individual Rotarian can get from Rotary International i.e. "Service above self Award".

But more than these awards, felicitation by villagers as a 'Good Doctor' and a letter from an unknown 'common man' praising my work is the real achievement for me.

Dear friends if you really desire to acquire Human Excellence in Rural surgical practice for you 'Sky is the Limit'!

Developing Rural Surgery, a struggle for Human Excellence

- Dr. R.D.Prabhu

First let us see how the rural surgery fits in the definition of Human Excellence. The Institute of Human Excellence defines Human excellence as follows:

It is being the best we can be in every situation. It is doing the best we can do in every endeavor. It is also knowing that we can deliver more tomorrow, that there will always be further to go and that we may never reach there..... Human Excellence needs knowledge to uplift mankind, capacity to put that knowledge in to practice, strength of conviction; conviction of one's potential, conviction of power of goodness and conviction of potential of goodness in the world and society.

As can be seen, a rural surgeon fulfills most of these conditions; and a good one fulfills all the conditions, and so, a rural surgeon is a good example of Human Excellence.

Incidentally, our own "Chandogya Upanishad we find a reference to excellent work, though it was not called human excellence then:

"Yadevidyayakarotishruddhayaupanishada tadevaveeryavattarambhavet".

If you do your any work with Vidya(knowledge, understanding of science etc.), with Shruddha (dedication, conviction and devotion) and with Upanishad (deep or meditative thinking), the outcome will be Veeryavattaram, that means full of energy or powerful! In other words, fruitful and successful. This is the sum and substance of the definition by Institute of Human Excellence.

When one helps another, taking risks beyond the call of one's duties, or risks one's safety to help another, it is said to be very good examples of Human excellence; e.g. bystander prevents a person falling under the moving train, risking his own life!

Rural surgery, though not as dramatic, has such acts again and again. Rural surgeons frequently try to save a life or to reduce morbidity by every means

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possible; for example, they risk and do caesarean section delivery, not a part of general surgical training, to save baby or mother or both; or risk doing a unbanked direct blood transfusion-UDBT, breaking the law, or even risk doing something that you had never done before but is urgently needed to save a life. Therefore I believe that by and large, all rural surgeons satisfy all or most of the conditions of this definition. They must be proud that they all are great examples of human excellence, and that their Rural Surgery is an act of Human excellence.

If one is writing about the struggle to develop Rural Surgery, one must start with the struggles of individual rural surgeon. For, he or she has had to struggle the most to establish his or her rural surgical practice. None of the teaching institutions have ever bothered to look in to the training of surgeons for rural surgical practice. So their struggles continue even now. Consider some the present rural surgeons amongst us:

1. Dr.J. K. Banerjee MS, FRCS, wanted to serve the unserved in the periphery of the Delhi city in a missionary zeal - he gathered a group of doctors to start the Rural Medicare society and its hospital in the suburb of Delhi.
2. Dr. R. R. Tongaonkar MS, wanted to keep his father's dream of serving in his own remote tribal village, Dondaicha, in Maharashtra,
3. Dr. Sitanath De FRCS, went to his home town the tribal town of Jhargram.
4. Dr. Regi MBBS, and Dr. Lalita MBBS wanted to serve the unserved and chose the tribal village of Sittilingi in Tamil Nadu,

There are many more who can easily be included in this list. There may be minor variations in their struggles, depending upon the geographical areas socio-economic factors and so on. But the struggles were to reach the same ultimate goal of good rural surgery.

These struggles are many. It could start with finding an appropriate place to have the hospital,

training local girls as nurses and boys as technicians, learning to perform surgery under local anesthesia, learning and teaching general anesthesia with crude open-Ether equipment, doing lab procedures X-Rays and now sonography, even repairing your own equipment. Being the only surgeon in the area soon one needs to perform surgeries from other branches of medicine. It is uncommon to have any blood bank in rural places and so one learnt to do blood grouping, cross matching and even collection of fresh blood and transfusion. Now this procedure is called UDBT. Those who are interested in knowing more about all these struggles, must read the books written by Dr. Banerjee, Dr. Tongaonkar and Dr. Sitanath De. Unfortunately, none of these activities are taught to a student during his or her surgical training, certainly none of these form any part of duties of a qualified surgeon! And so these struggles make rural surgery, an act of human excellence.

The second stage of the struggle of development was getting the concept of rural surgery accepted at state levels. Whoever started doing this did it in an effort to take the rural surgical health care to more communities beyond their own. This act too is an act of Human excellence. With some struggle some rural surgeons of Karnataka could convince the newly formed Karnataka State Chapter of ASI to give recognition to rural surgery. The chapter took rural surgeons on executive committee and even let them become Chapter Chairman. Thus Rural Surgery got accepted in Karnataka.

Rural surgery then spread to national level. The ASI president Dr. Rangabashyam came to know of the difficulties of rural surgeons and importance of rural surgery. He was honest enough to confess that he had no knowledge of all the difficulties faced by rural surgeons in our country. He immediately formed a Rural Health Care Committee of ASI which was to make ASI realize that plenty needs to be done for rural surgeons. Working with ASI was initially a struggle, but ASI President Dr. T. E. Udewadia was and still is a great supporter of our cause. With his help, this committee carried out a small survey amongst members of ASI to show ASI important data about the rural surgeons of India. The committee also brought together many rural surgeons from different parts of India. Dr. Banerjee, Dr. Poojari, Dr. Tongaonkar, Dr.

Sitanath De, Dr. Raval, Dr. Sivasubramanian, to name a few. Dr. Udewadia stood firmly behind rural surgeons. Rural surgery sessions during the ASICONs were great successes. Presentation by the rural surgeon at the prestigious symposium during the Golden Jubilee of ASI, in Delhi was the only one that attracted media attention! Dr. Purandare's talk in Rural Surgery session in Indore conference drew record attendance; the hall was jam packed. The RHC Committee wanted to organize more similar and better programmes for the rural surgeons during the annual conferences of ASI, but we did not have any budgetary support from ASI. So we requested for an independent Section of Rural Surgery. This was rejected by the ASI.

This rejection of rural surgery section by ASI was quite painful, but looking back now, ASI unknowingly did a good turn to rural surgeons. Rural surgeons realized that they themselves have to fulfill their dream of developing rural surgery further. Thus began the third stage of struggle. They started their own ARSI in November 1992. With their own association and with two very prominent personalities to lead them, late Dr. BaluSankaran and late Dr. N. H. Antia, they decided to develop a structured training programme to help rural surgeons do better. First thought was Training workshops for rural surgery. They organized workshops to introduce specialty procedures in the armamentarium of rural surgeons. But this was not satisfactory to all. We needed a training programme.

ARSI headed by Dr. Antia, succeeded in convincing the Indira Gandhi National Open University to start a Certificate course in Rural Surgery (CRS). A lot of efforts went in, in preparing the syllabus, the course, writing of text books, identifying training centers and so on. We remember the dedicated help of Dr. Agarwal and Dr. Jena of IGNOU. Dr. Antia was with us all the while. Dr. Sankaran too wrote a chapter on Orthopaedics. IMA Delhi branch tried to stall our efforts but we carried on. The ARSI members from Delhi headed by Dr. Banerjee, Dr. S. K. Basu, Dr. D. P. S. Toor, Dr. Gopal did a great job in developing this course. However, there was no support from any academic institutions except MGIMS, Sevagram, Wardha, to train the CRS candidates. Besides, our folly of making it open to only post graduates in

surgical subjects did not help the matters. Soon there were no takers for the CRS. So ARSI approached the National Board of Examinations to take up rural surgery, and they gracefully did. DNB in rural surgery began.

The Rural surgery is chosen essentially by those few who have some idealism, nationalism, and desire to serve the poor or, love for true general surgery, in other words love for rural surgery. So in the present atmosphere of commercialized medical education even DNB course has had difficulty to attract candidates

The next stage was to take the Rural Surgery to the international scene. Rural Surgery has been there in all the countries for ages. Our effort has been only to bring together the rural surgeons to exchange ideas with an aim to transfer the spirit of Human Excellence to all. As far as I can remember it, it was Dr. Gabriele Holoch of German Society for Tropical Surgery (they call it DTS) who took the first initiative to internationalize the Indian Rural surgery, and her husband Dr. Thomas Moch sowed the seed of International Federation of Rural surgery -IFRS. The IFRS was founded in 2005.

Sadly more and more rules are being framed in health care sector by the ill-advised authorities, who do not have the faintest idea about the ground realities in the country side. These realities bring the rural surgeon face to face with situations where following the rules may cost the patient his or her life. However, disregarding the rule may create a problem with law, but could certainly save a life. One must remember that a living problem is better than a dead issue. So one quietly ignores the law to do what is the best for the patient. Such situations reveal the true mettle of a rural surgeon and his struggles. These are supreme examples of their excellence.

We all must realize that the practice of rural surgery is a service to our own people and to our nation and therefore, though it is a continuous struggle I believe that this struggle for human excellence must continue.

The following poem by Henry Wadsworth Longfellow tells it all.

Psalm of Life

Tell me not, in mournful numbers,

Life is but an empty dream!
For the soul is dead that slumbers,
And things are not what they seem.

Life is real! Life is earnest!
And the grave is not its goal;
Dust thou art, to dust returnest,
Was not spoken of the soul.

Not enjoyment, and not sorrow,
Is our destined end or way;
But to act, that each to-morrow
Find us farther than to-day.

Art is long, and Time is fleeting,
And our hearts, though stout and brave,
Still, like muffled drums, are beating
Funeral marches to the grave.

In the world's broad field of battle,
In the bivouac of Life,
Be not like dumb, driven cattle!
Be a hero in the strife!

Trust no Future, however pleasant!
Let the dead Past bury its dead!
Act,— act in the living Present!
Heart within and God overhead!
Lives of great men all remind us

We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time;

Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again.

Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labour and to wait.

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The Association of Rural Surgeons of India (ARSI) is providing optimum surgical care within limited resources to impoverished communities in India who live not only in villages but also in urban slums. This effort is to bridge the widening gap between need for surgical and medical care and available resources. With a membership of more than 500 rural surgeons from various surgical disciplines, practicing all over India, ARSI comes out with a quarterly news bulletin in the name "Rural Surgery". This bulletin contains interesting articles on clinical cases, social issues, information about innovation pertaining to rural surgery and many others. ARSI is also closely associated with International Federation of Rural Surgeons whose members are spread all over the world. This bulletin is distributed to all the members both in India and abroad. We appeal to you to advertise in this bulletin as this not only gives you access to our members but also an opportunity to support a good cause.

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