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CME

Chronic Pelvic Pain in women

Original Article

Minicholecystectomy :

A safe and viable alternative to laparoscopic cholecystectomy in Low cost setup Hospital.

Case Report

MRKHS Syndrome

Methods & Devices

Gas Less Lift Laparoscopy



लोकाः समस्ताः सुखिनो भवन्तु

Editor :

Dr Dilip Gupta

For Circulaion to Members only



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EDITORIAL

Here is another issue of Rural Surgery.

This time we are starting a series of CME articles on Chronic Abdominal Pain. Chronic abdominal pain is a common disorder both in general practice and in referral hospitals. It leads to evident suffering and disability, both physically and psychologically. Organic aetiologies have a clear anatomical, physiological, or metabolic cause. Chronic abdominal pain without any clear source, in spite of a thorough diagnostic evaluation, is usually termed a functional disorder. Pain may arise from any system, including the genitourinary, gastrointestinal, and even abdominal wall. Although patients with this type of pain may have undergone numerous diagnostic workups, including surgery, their pain remains a challenge to all known diagnostic and treatment methods. More than 40% of these patients presenting with chronic abdominal pain have no specific etiological diagnosis at the end of their diagnostic workup.

First Article in this series is Chronic Pelvic Pain. Next in the series will be Chronic Abdominal

Pain. We invite articles from our members on this issue.

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President's Address at

ARSICON, RATLAM.....21st NATIONAL CONFERENCE.

My dear friends, colleagues, seniors, teachers, the chief guest of the function, the dignitaries on the dais, off the dais, I would like to welcome all of you for this wonderful August gathering here at Ratlam, Madhya Pradesh on behalf of Association of Rural Surgeon of India.

This is our 21st National conference. It is my humble wish that I must introduce you what is Association of Rural Surgeons of India. We, as A.R.S.I. are a different organization who started with a handful of Rural Surgeons at Shimoga, Karnataka under the mentorship of Late Dr. N.H. Antia way back in 1992. We started with few Rural, General Surgeons. And now A.R.S.I. has over 450 members scanned across the country, including overseas members.

Every year, we have a National Conference in different parts of the country. It is generally a suburb or a real typical Rural, area. At every conference there is flood of knowledge, academics, the voice from the experienced, local, delicious but cheap food and a glimpse of regional culture. The Rural surgeon we define as, a Surgeon working in a rural area with limited resources at his den!

65 to 70% of this country comprises of villages and rural folks. 80% of the allopathic graduates and post graduates prefer practicing in the district places or metropolis. But a determined surgeon, whose attitude is to serve to the common man of this country, has trotted his way to the rural communities. Typical Rural Surgeon has mastered the art of treating the rural masses in all the branches of surgery. He is a General surgeon, Gynecologists, Ortho Surgeon, ENT Surgeon, Onco Surgeon, Laparoscopic Surgeon, Urologist, pediatric Surgeon, and physician, an anesthetists too. He is a jack of all and master of Surgery. All our members are dedicated towards the rural community as a

whole. They are community health leaders e.g. Dr. Banarjee from Delhi suburb, great social workers e.g. Dr. Lalitha and Dr. Regi from Tamilnadu, educationalist e.g. Dr. R. R. Tongaonkar from Dondaicha, Maharashtra, surgical innovator Dr KC Sharma from Jammu... Almost everybody has become the part of the society, keeping themselves as low profile personalities and of course shying them away from the glittering world of Urban practice. Members of A.R.S.I. have to face many hurdles in their practice. There is no qualified anesthetist, pathologist, blood bank.

Rural India is full of poverty, malnutrition, taboos, lack of education, lack of health awareness, and a casual approach towards diseases. A farmer would pay more attention towards his recently delivered cow or buffalo by bringing a high protein supplements. But would not do the same for his own wife! The economics, priorities and time tables are different in rural areas. The Rural Surgeon is most suited and flexible and versatile person to match the demands of such variegated population. As a matter of fact, a Rural Surgery is a specially branch now. Our urban colleges agree to this, in person.

A.R.S.I. has given an inspiration to the world. Many countries especially African countries started having National Rural Surgery Associations in their countries. They started understanding the real tragic life of rural areas. Slowly different National Associations sat together and I.F.R.S. (International Federation of Rural Surgeons) was formed. We had successful conference of I.F.R.S. in Germany, Tanzania, and Nigeria and of course India. Having likeminded foreign friends is a boon for Rural Surgeons. Late Dr. Antia along with his friend from U.S., Late Dr. Finseth created a common fund in the form of Antia Finseth scholarship for the innovative

work for the benefit of rural India. One anaesthetist from rural Maharashtra devised an indigenous, cheap ventilator, was felicitated with this scholarship. Recently Dr. R.R. Tongaonkar and Dr. S.H. Kulkarni arranged free Hernia Surgery camps along with Dr.Kingsnorth from U.K. he and others have formed different centers for the surgical treatment of hernia [OPERATION HERNIA FOUNDATION] low cost, indigenous mesh repair for hernia is a major contribution of Dr. R.R. Tongaonkar. The mesh has become very popular in the world, has become a boon for the poor and African countries. Satellite centers, a sort of mini blood banks were started only because of ARSI. We had to convince to our city friends to get it.

A.R.S.I. provides an opportunity for the young Surgeons to update their skills and knowledge by honoring them with Shimoga-Jhargram fellowship. Fellowship of A.R.S.I. (F.A.R.S.I.) is honored to those who have done eminent work in Rural Surgery.

I must congratulate, Dr. B.D. Patel, who has started DNB RURAL SURGERY program at Shahada, Maharashtra. Our Rural Surgery bulletin is being edited by Dr. Dilip Gupta (Sevagram, M.S.), who is an excellent academician. The bulletin is regular and quite interesting. It swirls round the world! Dr. Ashok Malviya needs a special mention. He has organized a wonderful national conference at Ratlam, Madhya Pradesh despite limited resources. On behalf of ARSI, I would like to congratulate the IMA Ratlam branch without whom this Conference would not have been

successful. They have wholeheartedly supported Dr Ashok Malawiya and Dr Bajpai, the organizing chairman of his conference. Our senior member Dr. S.K. Basu (Delhi) is a hidden icon in ARSI. I thank all my colleagues who have helped me in my tenure as a President.

We all must admit that Rural India is transforming and is in transition mode.. T.V.s, mobiles, vehicles are flooding. The life has become fast .With globalization, internet, there is rapid urbanization. The world too has come closer. We share a lot of things with our African friends .Rural Surgeon MUST change. Decades back when he started his practice in a village, the same village is now a small town or a small district place. The newer facilities, gadgets, laparoscopy, C arm, or any other electro medical device should be welcomed e.g. Rural Surgeon must learn TURP, laparoscopy, Onco-Surgery and think of setting up of I.C.U.s and multi diagnostic Rural centers. One thing which the Rural Surgeon will not change or and should not change is his ATTITUDE and his humble heart for the common man, poor persons, farmers, the downtrodden , all of whom were his best friends of his life.

I thank the organizers for giving me this opportunity to put forth the philosophy of RURAL SURGERY. Thank you very much.

- Dr Sanjay Shivade,
PRESIDENT
Association of Rural Surgeons of India.

Chronic Pelvic Pain in women

(Paper presented as a guest lecture in 20th National conference of ARSI at Ratlam)

Dr.S.K.Baasu

Introduction

There are very few gynaecological conditions in our day to day practice that may often prove to be a clinical dilemma or clinician's nightmare. Chr. Pelvic pain (CPP) in women is one such condition. Quite often it presents a major challenge to healthcare professionals partly due to lack of understanding of the aetiology and natural history of the disease. It is indeed challenging and difficult to manage as in most of the cases there is no single underlying cause. The pathogenesis is poorly understood, making it a complex problem to diagnose and treat and often needs multi-disciplinary approach. Its chronicity impairs life quite a lot, so much so, that it may lead to emotional and behavioral changes and finally the pain becomes the disease. Despite the high prevalence, it remains one of the most perplexing and frustrating clinical problem faced by both physicians and affected patients. When the pain becomes chronic in spite of the best efforts of clinician, frustration often mounts for all involved.

Definition and Incidence

Although there is no universally accepted definition of chronic pelvic pain, a working definition may be as "Intermittent or constant pain below the level of umbilicus for at least six months and the pain is not exclusively related to menstruation, intercourse or pregnancy".

It is said that up to 20% of women between the ages of 18 to 50 have chronic pelvic pain of over a year's duration and CPP accounted for 10% to 20% of all outpatient gynecologic consultations annually. A statistics gathered by

Mayo clinic presented below shows the harsh reality with chronic pelvic pain. It suggests:

In 61% cases no diagnosis is made by the physicians.

Out of 39% cases endometriosis was diagnosed in 25% cases, 49% a non-cycle related gynaecologic disorder (e.g. chronic PID), 10% non gynaecologic disorder and 16% other causes.

It is indeed an eye opener and indicates that many women spend years, searching for a cause and a solution to their pain. They bounce around to different health practitioners without ever being treated. Where do they go?

Only 20% go to a gynecologist, 10% to other physician 1% goes to psychiatrist for mental health evaluation and rest goes nowhere. Therefore it is obvious that a major section of women with CPP suffer in silence.

Possible Etiological factors in the genesis of chronic pelvic pain

Gynaecological causes :

- Endometriosis/Adenomyosis
- Fibroids
- Intra-peritoneal Adhesions
- Pelvic inflammatory disease
- Ovarian cysts; residual/trapped Ovary syndrome
- Pelvic venous congestion
- Adnexal cysts
- Cervical stenosis
- Chronic endometritis
- Endometrial polyps
- Chronic ectopic pregnancy
- Pelvic relaxation
- IUD

Non gynaecological and other causes-

Bowel & Urinary	Irritable bowel syndrome; Causes	Inflammatory Bowel; Constipation Interstitial cystitis
Others	Nerve entrapment (scar, fascia, narrow foramen) Referred musculoskeletal causes Hernias; Medical disorders	
Psychological	Psychosexual causes Depression	

Principle of assessment

It is important to remember that frequently there is more than one component to chronic pelvic pain. It is also important not to forget psychological causes. Assessment should always aim to identify contributory factors rather than assigning causality to a single pathology. The initial approach to the patient with pelvic pain should include a thorough assessment via a complete history and physical examination which is crucial. Adequate time should be allowed for the initial assessment of women with chronic pelvic pain. They need to feel that they have been able to tell their story, that they have been listened and believed too. It is good to have multidisciplinary approach for CPP and one should always consider trial of medical therapy prior to diagnostic laparoscopy!!

History taking

The history should be used to characterize the pain and must include questions about location, duration (constant or intermittent), onset, radiation, associated symptoms (menstruation, vaginal discharge, bladder and bowel symptoms), severity, quality of pain (e.g., sharp, cramping, dull aching), alleviating and aggravating factors and the effect of movement and posture with the pain. Relevant organ system symptoms (e.g., urinary, gastrointestinal, and musculoskeletal) should be

reviewed as there are many non gynecologic causes of pelvic pain. Cyclic pain is usually gynaecological origin. At this point certain relevant queries are very useful to help clinician to make a diagnosis. They are history of previous pelvic infection, STIs, recent/previous surgery, Biological depression, partner violence, sexual abuse, any symptom suggestive of life threatening disease (Red flag features) etc. Enquiry should also be made about patient's last menstrual period, last cervical smear report if any, whether patient is sexually active, if so, whether she is using any contraception. It is important to ensure that the patient is not pregnant. In case of doubt urine for pregnancy test needs to be carried out. Missing early pregnancy may have medico legal implication. Patient should also be asked to maintain a menstrual diary for consecutive three months.

Clinical examination

Performance of a pelvic examination is the standard of care for women with lower abdominal and pelvic symptoms. Following a thorough abdominal examination for any evidence of abdominal surgery and tenderness a pelvic examination should be performed. Systematic gynaecological examination includes inspection of external genitalia, pelvic floor for any spasm, speculum examination of vagina and cervix. Finally the internal examination should include the uterus the fornices, bladder, vaginal walls etc. One should look for mobility, size of the uterus, nodules in the pouch of Douglas. Chronic pelvic pain can be caused by a of host gynecological conditions including endometriosis, fibroids, Vulvodynia (chronic vulvar discomfort), spasms in the pelvic floor muscles and pelvic inflammatory disease. The physical examination serves to confirm the history. Careful scrutiny of the woman's history and physical findings will frequently reveal factors

that may be contributing to the pain and can therefore be at least partially treated. Given the incomplete understanding of the genesis of pelvic pain, it may be necessary to keep an open mind about the cause and consider unusual diagnoses, such as hernias or retroperitoneal tumours, abdominal trigger point, Vestibulitis, pelvic floor myalgia, pelvic venous congestion, interstitial cystitis or consider causes which until recently might have been dismissed as rarities, such as musculoskeletal pain. In addition to the standard gynecologic history and physical examination, in-depth evaluation of the emotional aspects of the person's life and relationships, including sexual history, should be done. This may need the help of a mental health professional. However this should be done as part of the total patient evaluation and *not* after all "organic disease" has been ruled out.

It is important not to leave the woman with the feeling that nothing more can be done to help her.

Investigations needed

Due to the large number of possible causes of pelvic pain, diagnosis begins by process of elimination. Therefore clinician may need to order series of tests. Though tedious and time consuming, this approach is the best way to determine the cause of pelvic pain. However the test may be prioritized based on the provisional diagnosis. Following are some of the useful tests:

- 1) Routine complete blood count, erythrocyte sedimentation rate, urinalysis, urine culture (if needed)
- 2) Screening for infection (STIs, Chlamydia Gonorrhoea)
- 3) Ultrasound (Fibroids, Endometrioma/ ovarian cyst, Adenomyosis)
- 4) MRI (Pelvic adhesions, Adenomyosis, pelvic and Rectovaginal endometriosis etc.)
- 5) Laparoscopy (Diagnosis and treatment of endometriosis, adhesions)

- 6) Cystoscopy (Interstitial cystitis)
- 7) Hysteroscopy (diagnosis and resection of intra uterine fibroids)
- 8) Intravenous Pyelography (IVP), and barium enema

Treatment

Once the diagnosis is made from history, examination and investigations the treatment will depend accordingly. Based on the cause of CPP and diagnosis the patient may be referred to respective specialties. Besides Gynecologist's help which is commonly the case, one may need the assistance of Gastroenterologist, Urologist, general surgeon, Orthopedician, Neurologist, physiotherapist, Psychiatrist and many others. Guidelines from RCOG (2005) state women with cyclic pain should be offered a therapeutic trial using the combined oral contraceptive pill or a GnRH agonist for a period of 3-6 months before having a diagnostic laparoscopy. The American College of Obs. Gynae (ACOG) recommends and concludes that GnRH agonists are effective in relieving pelvic pain associated with endometriosis, IBS, Interstitial cystitis and pelvic congestion as well as in women with symptoms consistent with endometriosis who do not have endometriosis Thus empiric treatment with GnRH agonists without laparoscopy should be considered as an acceptable approach to treatment. In case there is no response to NSAIDs, OCS and GnRH agonists, laparoscopy is the choice.

In case of all negative investigations, proper psychological assessment is needed and therapy for psychosexual, anxiety and depression, whatever is appropriate, should be started.

Discussion

CPP is a symptom and not a diagnosis. Incidence may vary from place to place. In rural Himalaya, at Uttarakhand, a much higher incidence of 50% has been noted in our study.

It may be noted that while some of the above mentioned gynaecological conditions are very important causes of CPP, conditions like fibroids, intra peritoneal adhesions and pelvic venous congestion may not always give rise to CPP. Only submucous fibroids are thought to be associated with cyclically recurring pain, whereas degeneration of a larger fibroid may result in acutely painful ischemic necrosis. While peritoneal adhesions are usually asymptomatic, they may cause pain, particularly when they are extensive and involve sensitive structures like the ovary. Ovary, when adhered to the vaginal apex or encased in an area of adhesions with insufficient room to accommodate normal cyclic changes in ovarian size or if they undergo the "cystic degeneration" typical of the "residual ovary syndrome", may cause CPP. Venous dilatation and even reflux have been detected in asymptomatic women, making it unclear whether pelvic venous congestion is a cause of chronic pelvic pain.

Keeping a monthly menstrual diary helps to assess whether any additional co morbidities may be involved if the patient keeps detailed records of the time and severity of episodes, other events associated with pain, such as pain with bowel movement, dyspareunia, general aches and pains, associated depression, problems with sleep and urination before and during treatment, activities and behaviors that may worsen or alleviate pain.

Evaluation for interstitial cystitis is worth particular discussion because it appears as co morbidity with endometriosis in at least 40% of cases. A retrospective review of 60 women who had concurrent laparoscopy, cystoscopy, and hydro distention revealed that 58 had interstitial cystitis and 48 had endometriosis, and that of those with biopsy-confirmed endometriosis, 98% also had interstitial cystitis. Another report, using intravesical potassium sensitivity testing rather than cystoscopy to diagnose interstitial

cystitis, found that 86% of women with endometriosis had interstitial cystitis. Such data suggest that evaluation for interstitial cystitis is very crucial in CPP.

Nerve entrapment usually follows an abdominal cutaneous nerve injury. Entrapment may occur spontaneously or within weeks to years after transverse suprapubic or laparoscopic incisions. The ilioinguinal or iliohypogastric nerves may become trapped between the transverse and the internal oblique muscles, especially during muscular contractions. Alternatively, the nerve may be ligated or traumatized during surgery. The clinical picture is usually suggestive of long term postoperative symptoms with an onset following surgery. The incidence of nerve entrapment (defined as highly localised, sharp, stabbing or aching pain, exacerbated by particular movements, and persisting beyond 5 weeks or occurring after a pain free interval) after one Pfannenstiel incision is 3.7%. Psychological factors such as depression, chronic stress or a history of sexual or physical abuse may increase the risk of chronic pelvic pain. Emotional distress makes pain worse, and living with chronic pain contributes to emotional distress. These two factors frequently get locked into a vicious cycle.

Pelvic congestion syndrome can be defined as dilated pelvic veins with delayed disappearance of dye and is a common finding in women with no apparent cause for their pelvic pain. If pelvic congestion is sufficiently severe, then it is likely that pain will develop. Standing for long periods of time will increase pelvic congestion and hence pain in these women. Laparoscopy is often used to assess the degree of venous dilatation. However, this technique can lead to false-negative results. The increased intra-abdominal pressure associated with the iatrogenic pneumoperitoneum created during laparoscopy can collapse the otherwise dilated veins, obscuring the diagnosis. Venography is

the gold standard and most accurate method to assess venous dilatation and reflux. Both Progestins and Gonadotrophins-releasing hormone (GnRH) agonists were shown in randomized controlled trials to effectively decrease pain during therapy, with GnRH agonists showing higher efficacy. Recently Embolization is used increasingly to manage pelvic congestion syndrome.

Laparoscopy is an important tool in the diagnosis of CPP and has certain advantages. It helps to diagnose or rule out endometriosis and adhesions. It gives Patient reassurance ("Placebo" effect), helps to differentiate between Gyn and non-Gyn etiology, rule out serious or malignant disease, increases accuracy of diagnosis and lastly with diagnosis immediate surgical treatment is often possible with laparoscopy. However some study suggest that even with laparoscopy no cause had been found in 39% of cases and Endometriosis lesions were missed in 25% cases. Definitive identification of cause was difficult with multiple abnormalities and no correlation was found between severity of pain and quantity of Endometriotic lesion. Possibility of major surgical and anesthetic complication is a reality.

It is believed that 25% to 40% or more of all patients who have had hysterectomies performed for CPP to end the discomfort continue to have pain after the procedure. These results suggest that in some individuals with CPP pain may originate from areas other than the uterus. A more defined study of patients who had previously had a hysterectomy for CPP without amelioration of the pain demonstrated that close to 80% had interstitial cystitis not previously detected. This suggests a need to investigate bladder dysfunction fully and thorough evaluation of non-reproductive causes as the cause of CPP before suggesting to the patient that a hysterectomy will help their situation.

Preventative strategy like screening and treatment of avoidable conditions such as lower genital tract infection, which can result in PID, may significantly reduce the incidence of PID and its complications. A recently conducted randomized trial in a health maintenance organization showed that routine screening for genital *Chlamydia Trachomatis* in a sexually active population between the ages of 15-35 years resulted in a significant reduction of almost 60% in the incidence of PID. This may lead to a reduction in the incidence of CPP. Administration of single dose antibiotic therapy to index patients and relevant partners in order to ensure compliance, efficient contact tracing, availability of high quality diagnostic facilities such as ultrasound scans within the CPP clinics to look for sexual transmitted infections of the upper genital tract are some other preventive strategy. Finally, public awareness and education are also vital in ensuring early recognition of the condition and early self referral to a multidisciplinary clinic in order to ensure adequate management. Other preventive measures can also follow a similar approach. For example, irritable bowel syndrome can be minimized by ensuring a healthy and high fibre diet and the incidence of nerve entrapment can be reduced by adapting surgical techniques which avoid the relevant nerves being damaged during surgery. Preventative measures will also be needed to tackle the growing incidence of childhood physical and sexual abuse.

To conclude, the approach to women with chronic pelvic pain should be therapeutic, supportive and sympathetic. Thoroughness, continuity, multidisciplinary approach and compassion are central themes of successful management.

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Minicholecystectomy :***A safe and viable alternative to laparoscopic cholecystectomy in Low cost setup Hospital.*****Dr. N. Somorjit Singh MS¹, Dr A. Ranjita Devi Ms², Dr. Ramthaipou Kamei MBBS³,
Dr. I.Soniya MBBS⁴, Dr. K. Rupachand Ms⁵****Introduction :**

Cholelithiasis is a common medical problem which needs surgical intervention for total cure. Since the Cholecystectomy is the treatment of choice for the symptomatic gall stones, many evolutionary techniques have been adopted with quite encouraging results from the classical open cholecystectomy to laparoscopic cholecystectomy and even Natural orifice trans endoscopic surgery (NOTES).

The first ever cholecystectomy was performed by Carl-Langcnbueh, on 15th. July 1882 at the Lazaruskrankenhas in Berlin on a - 12 years old man. (3,4) Minicholecystectomy was performed by Goco and Chamber (1983) almost 100 years after the conventional cholecystectomy with 4-6 cm muscle splitting subcostal incision (5). The fascinating but challenging era of laparoscopic-cholecystectomy started in the year 1987. Thereafter, more and more surgeons have shown inclination towards this minimally invasive procedure. Also, it has become question of debate regarding the superiority of mini-cholecystectomy. We performed 150 minicholecystectomy successfully with 4-6 cm incision with a success rate of 98% .

Keywords :

Cholelithiasis, Mini-cholecystectomy, Minimally invasive, Notes

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Material and Methods :

The present study is based on 150 patients of either sex having symptomatic gallstones who were admitted in the Department of surgery, Unit 2, Jawaharlal Nehru Institute of Medical Sciences, Porompat, Imphal over a period of one year from August 2010 July 2011.

Minimum age of the patients was 10 years and maximum 80 years whereas minimum weight was 35 kgs and maximum 85 kgs. 38 patients were having dyspepsia, 117 patients are having pain in the right hypochondrium as main symptoms. 9 patients had lump abdomen at the time of admission. and 24 patients had no sign and symptoms at the time of admission. Once declared fit for surgery by the anaesthetist all patients were subjected to mini-cholecystectomy.

The patients had been informed before surgery about the procedure and the risk of a possible extension of the laparotomy, if necessary. Most patients were admitted a day before surgery.

The patients being in supine position, right hypochondrium was lifted up by placing a sand bag under the right lower chest and hypochondrium.

A Right sub-costal incision of 3-4 cm long of which 1/3rd of the length over the GB fundus if palpable otherwise over the tip of the 9th costal cartilage and rest medially. The length of the incision are 3 cm in thin persons and children and 4 cm in muscular and obese patients.



Fig 1: Skin Incision

Then after dividing the anterior rectus sheath, the rectus muscle is either retracted or divided. The posterior rectus sheath and peritoneum are divided protecting the 8th and 9th intercostal nerves.

Gall bladder was located and grasped with the sponge holding forceps and freed of any adhesions.



Fig 2 : Holding of the GB fundus with Sponge holding forceps

Two small long gauze packs were put into the abdominal cavity in order to push the stomach, duodenum, colon and omentum away from the gall bladder. One small Deaver's retractor were used to place on the gauze packs and mentioned structures retracted. Liver was retracted headway with a small right angled retractor.

The dissection of GB was done always by Fundus first method with evacuation of the GB contents.

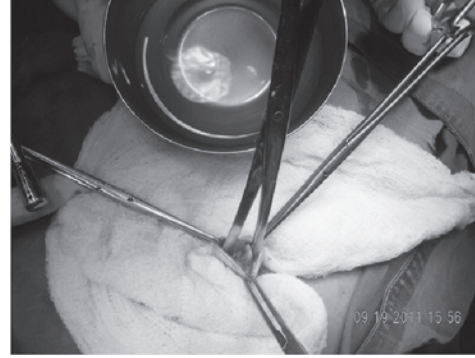


Fig 3: Evacuation of the GB contents

Further dissection of the peritoneal reflections upto hepato-cystic triangle and neck of the GB with simultaneous dissection of the GB fossa.

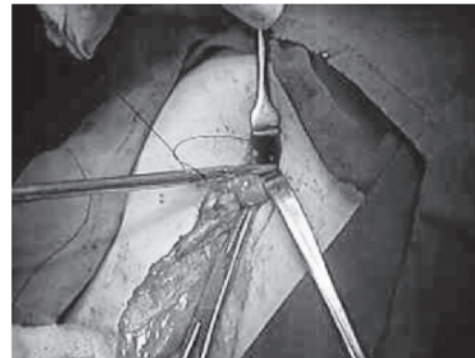


Fig 4 : Ligation of the Cystic Artery and Duct

The cystic duct and artery were ligated with mersilk and vicryl.

No nasogastric tube was inserted to the patients during surgery .

If technical problems persisted (adherences in the triangle of Calot, haemorrhage), the wound was extended laterally in order to get a better visibility in the surgical field . Drainage was necessary only in those difficult cholecystectomy where bleeding or bile leakage expected.

Then the skin was closed by sub-cuticular stitches with 3-0 Vicryl Rapide/ monocryl.

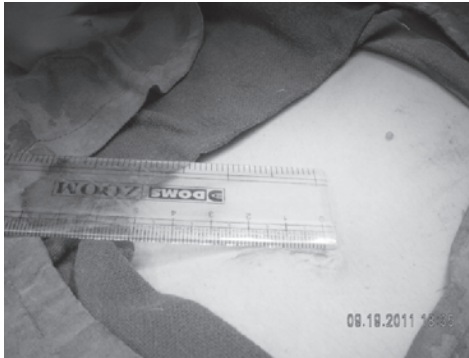


Fig 1: Skin closed with Vikryl rapide

All the patients received antibiotics on the same day of operation and another one day following surgery and analgesics for two days after operation and after that patients received analgesics when required. Fluid intake was permitted a few hours after surgery, and early mobilization was encouraged as well.

Once patients were able to move without help and once they were able to tolerate a semi-solid diet, they were discharged. Check-up was performed 8 days after surgery, and a second check-up was carried out 21 days post-surgery in order to assess the patients capability to resume normal activities.

Discussion:

Of the 150 patients, in 117 (78%) right upper abdominal pain was the sole symptom reported at hospitalization; 9(4%) were hospitalized

for acute cholecystitis. In two patients (1.3%) associated with ureteric calculus. In two patients (1.3%) associated with acute appendicitis. In two patients (1.3%) are found chronic cholecystitis with contracted gall bladder.

Table 1 : Mini cholecystectomy - associated disorders in patients with biliary lithiasis

NO. OF PATIENT (%)	DISORDER
Hypertension	24 (16%)
Type 2 diabetes mellitus	12 (8%)
Obesity	21 (14%)
Hypothyroidism	4 (2.6%)
Hyperthyroidism	3 (2%)

TABLE 2 : Operative Parameters

Incision length	3-4 cm
Operation time	35 mins (25-90)*
Peritoneal drainage (more than 72 hours)	1 case
Nasogastric suction	Nil
Post-operative analgesics	5 doses (2-8)*
Post-operative hospital stay	4 days (2-13)*
Return to work	14 days (10-21)*

*Range

Table 3: Operative findings

Acute cholelithiasis with adhesion	6
Low insertion of the cystic duct	1

Table. 4 .Comparative results between current study and studies on laparoscopic cholecystectomy [11, 12,13, 3]:

	11	12	13	3	current study
No. operated patients	152	100	179	180	150
Conversion rate to classic surgery(%)	8.6	4	9	6	4.6
Average duration of surgery	138	85	140	55	35
No. pts. with postop. complications	11.2	8	7.2	4.4	3.6
Accidental damage of MBD(%)	0.66	1.0	0.6	0.5	0.6
Mortality (%)	0	0	N	N	0
Average duration of postoperative hospitalization(days)	1.3	1.2	3.9	1.0	4
Average duration before resuming activity(days)	7	12.8	18	12	< 15

N= not disclosed

Laparotomy had to be extended into in 7 patients (4.6%) [5 patients due to acute cholelithiasis with adhesions, 1 patient due to low insertion of the cystic duct, 1 patient due to minor bile duct injury which also had biliary drainage for more than 72 hours].

Of the total of 150 patients, 5(3.3%) developed local infections, requiring longer hospitalization.

The average duration of the surgical intervention was 35 minutes. The average duration of hospitalization was 4 days. The average duration before the patients could resume their normal activities was 15 days. The patients who had no complications were able to resume their normal activities after 14 days.

After approximately 6 months from surgery, 78 (52%) patients were contacted and asked about the operation and most patients were satisfied with the results of the surgery, and some of them even recommended mini cholecystectomy to their friends as a method for treating Gall stone diseases.

In patients operated by minilaparotomy, the conversion rate to classic cholecystectomy and postoperative complications are significantly lower than in laparoscopic cholecystectomy. Average hospitalization time in laparoscopic cholecystectomy is about the same as in mini cholecystectomy if we also take into account the cases requiring conversion. Judging by the results obtained 3 months, 1 year after surgery respectively, there are no differences except for the fact that the operative costs of laparoscopic cholecystectomy are higher [6].

Mini cholecystectomy can be carried out with standard surgical equipment with long and light artery forceps , long and narrow retractors , a good assistant with experience of fundus first technique without further costs.

The surgeon's expertise in performing mini cholecystectomy is essential, due to impaired visibility. Most surgeons gain experience by

gradually reducing the length of the incision. In laparoscopic cholecystectomy, every surgeon needs specialized training, and also extra financial efforts in the operation theatre. Mini cholecystectomy has other advantages: wide indications, no specific accidents, average rate of minor bile duct damage between classic cholecystectomy and laparoscopic cholecystectomy [4, 5, 12].

Conclusion :

Mini cholecystectomy is a safe and viable alternative to laparoscopic cholecystectomy especially, where healthcare systems are permanently sub-financed without any extra costs incurred by costly equipments. It does not require a long training period and a high level of expertise.

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CASE REPORT

MRKHS Syndrome

Dr. Raj Lakshmi Nalam, Dr. Paul Emmanuel, Dr. Anne George Cherian, Dr. Aabidha Parveen.

Abstract:

Mayer-Rokitansky-Kuster-Hausen syndrome is a congenital anomaly characterized by defect in genesis of Mullerian duct. It is the second most common cause for primary amenorrhoea. We report our experience in management of patient with congenital absence of vagina as a part of MRKH syndrome. Another major focus of this article is to show that vaginoplasty can be done in rural setup with minimal resources.

Introduction:

MRKH syndrome is rare congenital anomaly characterized by congenital aplasia of uterus and vagina in woman. Diagnosis is often made either radiologically or laproscopically in patients in whom hormonal and karyotyping investigations for primary amenorrhoea are normal. Incidence is 1:4,500 to 1:5,000 live births.

Case:

Miss X, 22 yrs, referred to our department as a case of primary amenorrhoea. No history of cyclical pain abdomen. No history of sexual exposure. No significant past medical and surgical history. No similar complaints in family.

On examination her height was 159 cms, thin built with well-developed secondary sexual characters. Breast was Tanner 3 stage. Axillary and pubic hairs were present. Local examination showed a vaginal dimple around 0.5 cms in diameter. Urethral opening was anterior to the dimple and anal opening was located posterior

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to the dimple. Uterus could not be palpated on rectal examination.

Sonological examination showed hypoplastic uterus with normal ovaries. Buccal smear showed barr bodies. Serum FSH and LH were within normal limits.

Due to these findings possibility of vaginal or uterine cause for the anomaly was entertained.

Diagnostic laparoscopy revealed both ovaries to be normal. Fallopian tubes on either side appeared to be entering into a rudimentary structure. With this firm diagnosis of MRKHS was made.

Management :

Patient was informed about her condition and her limited option to be able to have a coital function only. With her concordance vaginoplasty was planned.

A transverse incision was made on vaginal mucosa. Space between rectum and bladder was made blindly and around 10 cms length was achieved, a mould made especially for this purpose, measuring 10 cms in length and 3 cms in breadth, was covered with a male condom and kept in vagina for one week. The mould was kept in position by tight cotton pad. Mould was made of acrylic material, by our dental department, specifically for this purpose and is cost effective.

Patient was on intravenous antibiotics and continuous bladder drainage for 1 week. Normal diet was started very next day. At time of discharge she was given instruction on the usage of mould.

Discussion:

Incidence of MRKH syndrome is 1 in 4,500 [1-3]. Majority cases are sporadic [4]. Familial cases have also been reported [1,5-7].

First clinical sign is generally primary amenorrhea in patient presenting with normal female phenotype and genotype [8-11]. There is normal functioning ovary with no signs of androgen excess [12, 13]. It is of two types. In type A there is symmetrical lack of development in mullerian ducts [14], while in type B lack of development is asymmetrical [15]. It is also associated with ovarian and renal anomalies. Type A i.e. isolated MRKH syndrome is less frequent than type B [14]. This patient has isolated MRKH syndrome.

Diagnostic Method:

Trans-abdominal ultrasound is a simple and non-invasive method and must be first investigation during evaluation. It reveals absence of uterine structure between bladder and rectum. But a quadrangular rectovesical structure may be wrongly identified as a hypoplastic or juvenile uterus; this actually corresponds to the vestigial lamina located underneath peritoneal fold. This could be the reason why the outside scan done on our patient showed hypoplastic uterus. MRI is more sensitive and specific.

Karyotyping shows 46XX. There is no chromosomal modification. Hormonal assay also forms an important part of diagnosis.

Differential Diagnosis:

Isolated vaginal atresia, Androgen insensitivity syndrome, Turners syndrome, Transverse vaginal septum, Imperforate hymen,

Management:

It includes surgical and non-surgical methods.

Non-surgical- Most commonly used method is Frank's dilator method. Serial dilators

are placed on vaginal dimple for 20 min every day, first by clinician and then by patient herself. A variation in this is Ingram's bicycle stool [15]. The process takes between 6 weeks to several months, with success rate around 78% [16]. It is applicable when vaginal length is deep enough, around 2-4 cms. But our patient had vaginal dimple of 0.5 cms.

Surgical: this involves dissection of space between rectum and bladder, placement of a mould covered with skin graft. Other material used to cover mould like peritoneum [16] or synthetic material [17, 18] or amnion. Sigmoidal colonoplasty involves vaginal replacement or creating neovagina by a 12-18 cms long segment of sigmoid colon.

Vecchiotti operation is a mixture of surgical and non-surgical method. This procedure involves creation of neo vagina by dilatation with a traction device attached to abdomen, sutures placed sub-peritoneally.

To accept her infertility is the most difficult aspect of this syndrome, but fortunately now woman can appeal for in-vitro fertilization of their own eggs and to use surrogate pregnancy [19].

Keywords:

Mullerian, congenital anomaly, mayer-rokitansky-kuster-hausen syndrome, surrogate pregnancy.

Patient with mould in situ

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Gas Less Lift Laparoscopy

Dr. J Gnanaraj

Introduction

The 20th conference of the Association of rural surgeons of India [ARSI] was held from October 26 - 28 2012. The ARSI and the Ratlam Obstetric and gynecological association joined together to organize a live workshop for demonstrating Lift laparoscopic surgeries and hysteroscopic surgeries at the zonal railway hospital at Ratlam. Dr. Anamica Awasthi was the organizing Secretary for the workshop. Dr. Daniel Kruschinski from Germany was to be the operating surgeon but unfortunately due to his ill health was unable to attend the workshop.

The surgeries carried out were

- SILS [Single Incision Laparoscopic surgery] gas less Lift laparoscopic LAVH
- SILS [Single Incision Laparoscopic surgery] gas less Lift laparoscopic diagnostic laparoscopies [2] with adhesiolysis, tubal patency testing and ovarian drilling
- Endometrial vaporization [2]

Risks and Disadvantages of The Endoscopic Procedure With Gas For The Patient

1. High pressure in the abdomen as well as a decrease of body temperature
2. Subsequently pains, that can radiate as far as into the shoulder and neck-region partially for days
3. Extension of the recuperation-phase
4. Overload of the organism with carbonic acid
5. Acidity of all organ systems
6. Rare, but typical complications of an endoscopic operation can be: Injury of organs or vessels upon the Verress

needle with which the gas is insufflated to the abdominal cavity or through the additional trocars, that can cause also dangerous emergency situations (for example bleedings or air embolism)

7. An air embolism in the vascular system through injury of big vessels during the operation with following death admittedly is rare, but, to hardly exclude, since the needle, that is inserted into the abdomen, without view, is therefore inserted "blindly" and therefore this complications cannot be avoided completely.

Advantages to The Patients

1. Less pain after surgery
2. Shoulder pain is not present
3. Less pain medication needed
4. Faster post - operative recovery period
5. Surgery is more precise and safer
6. Less risk of infection that arises due to inadequately cleaned instruments and long tubes
7. No serious complications due to blind insertion of needles and trocars
8. No clips or FB remaining in the body for a long time
9. Surgery could be performed under regional anesthesia
10. No ill effects of gas etc., on fetus, if performed during pregnancy
11. Less expensive

Advantages to The Surgeon

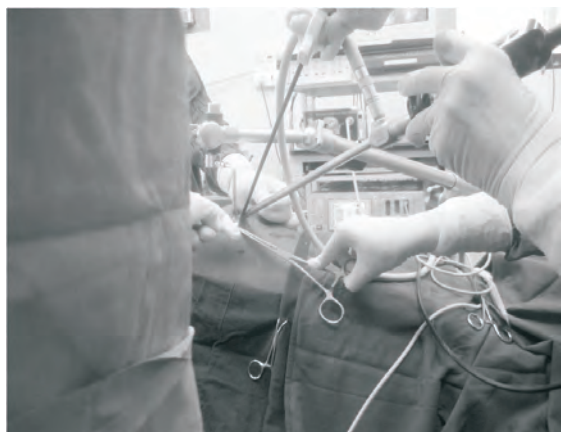
- A. Dangerous complications of blind insertions are avoided
- B. Traditional instruments could be used

- C. Better tactile sense
- D. Shorter learning curve
- E. Single incision laparoscopic surgeries are much easier.

The Questions that came up during the Workshop and Comments

1. Exposure does not seem to be as good as with traditional laparoscopy with gas

It is not right to compare Single incision laparoscopic surgeries with Lift laparoscopy with traditional laparoscopies. Single incision traditional laparoscopic surgeries are much more difficult technically. Moreover the Uterus was a very large one with a



cervical Fibroid and this would have been difficult with any type of surgical procedure

2. I have done over 1000 traditional laparoscopy with gas and have not had any complications why should I change over to gas less surgeries?

The serious complications are definitely rare but unfortunately present and have been described by many. They are very serious too. The morbidity and minor complications might not be noticed by the surgeons

The reason we advocate this for rural patients is the fact that the surgeries could be carried out under spinal anesthesia which makes the cost of anesthesia much less for the rural patients. With multiple incisions the regular open surgical instruments could be used and except for the camera no electronics are involved which makes the maintenance of the equipment much easier in rural areas. Since open techniques could be modified and used the learning curve is not steep and it is easier for the rural surgeons to learn the procedure.

3. How much the equipment cost?



Right now it costs about 6000 Euros because it is produced in Germany. However we are planning to discuss with Dr. Daniel Kruschinski to get it to about 2000 Euros for the IFRS members.

4. Are there any training programs that are available?

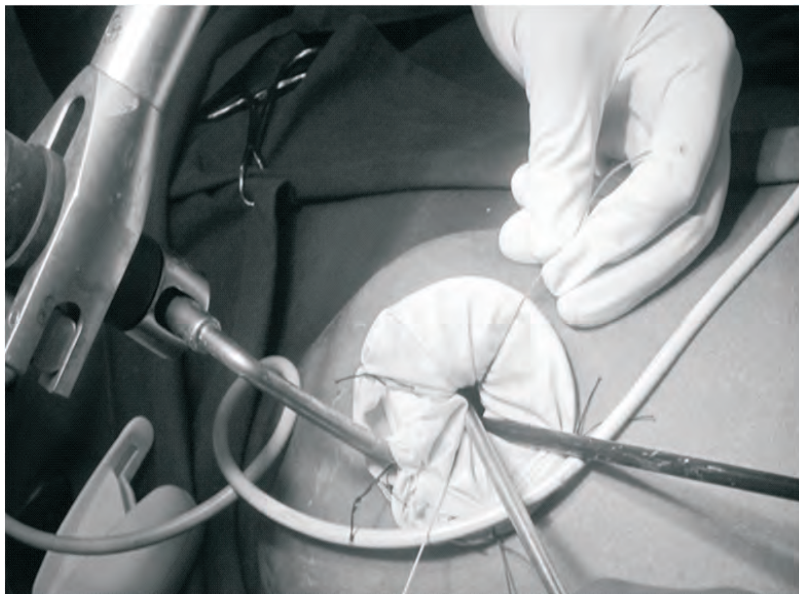
Karunya University is starting an online training program on Lift laparoscopic surgery and the EndoGyn in Germany too offers regular training programs. The German program is only a contact program

while the Karunya University program has a one week contact program.

More information about EndoGyn Germany could be obtained from [Http://endogyn.com/](http://endogyn.com/)

An Youtube video could be seen in the following website

<http://www.youtube.com/watch?v=Ghv399ggAB8>



Instructions for Authors

Reviewing and Publication

All submissions will be subject to an immediate screening process by the Editor. Papers not within the scope, or that obviously do not meet the scientific standards of the journal, may be declined by the Editor without further review. Those that meet the criteria for consideration will usually be sent to two reviewers. All articles are edited to ensure conciseness and clarity. The Editorial board reserves the right to make literary corrections. The Editor will make every effort to reach decisions within 8-10 weeks of submission. Accepted articles will be prepared for publication in any of the forthcoming issues.

Submission

Articles in the following categories are published:

Original Articles : Original clinical studies relevant to the care of medical patients may be submitted for publication. [Maximum 3000 words and not more than 20 references]

Review articles : May discuss diseases commonly treated, or address diagnosis and/or management strategies during patient care, or discuss monitoring, equipment, drug therapies in patient care. [Maximum 3000 words and not more than 20 references] Editorials and Review articles are usually by invitation.

Case Reports : Consisting of brief, illustrative reports of patients' history and medical management, with a clear message for all readers in the form of a potentially useful treatment deserving scientific evaluation, or a potentially avoidable hazard, may be submitted for publication. The discussion should highlight any previous similar reports, the importance of the issues identified and recommendations by the authors. [Maximum 2000 words and not more than 6 references]

Letter to editor : Well described series of patients or single patient, particularly discussing problems seen less commonly elsewhere, or when

there has been innovation in the management of the condition described, may be submitted. [Limit 1000 words and not more than 4 references]

Manuscript Preparation

Authors should submit articles written in English. Authors are requested to use a clear and simple writing style. All text must be double spaced throughout. Abbreviations should be defined the first time they are used and a list of all abbreviations used should be provided.

Format

Manuscripts should be divided into : Title page, Keywords, Abstract, Introduction, Materials and methods, Results, Discussion, Acknowledgements, References, Figure legends, Tables.

Title page : It should have title of the manuscript in capital letters and should list author affiliation, full addresses (including telephone numbers, fax and email) for all authors and indicate the author responsible for correspondence.

Keywords : Up to five keywords should be given in alphabetical order.

Abstract : Should not exceed 250 words and must be structured into separate sections headed - Background and Aims, Subjects and Methods, Results, Conclusions.

Introduction : Must clearly state the background to the research and its aims and should end with a very brief statement of what has been achieved.

Materials and methods : Should be subdivided and must contain sufficient experimental information to allow the experiments to be reproduced.

Results and discussion : Should be kept separate. Authors must state the main conclusions of the research, giving a clear explanation of their importance and relevance.

Acknowledgements : Should be kept to a minimum.

References : Must be prepared in the Vancouver style including the abbreviations of journal titles and first and last page numbers. References must be numbered consecutively, superscripted without brackets in the order in which they are cited in the text, followed by any in tables or figure legends. Each reference must have an individual reference number. Please avoid excessive referencing. All authors should be listed unless there are more than six in which case list the first six followed by et al. Please take care to follow the reference style precisely; references not in the correct style may be retyped, necessitating tedious proofreading.

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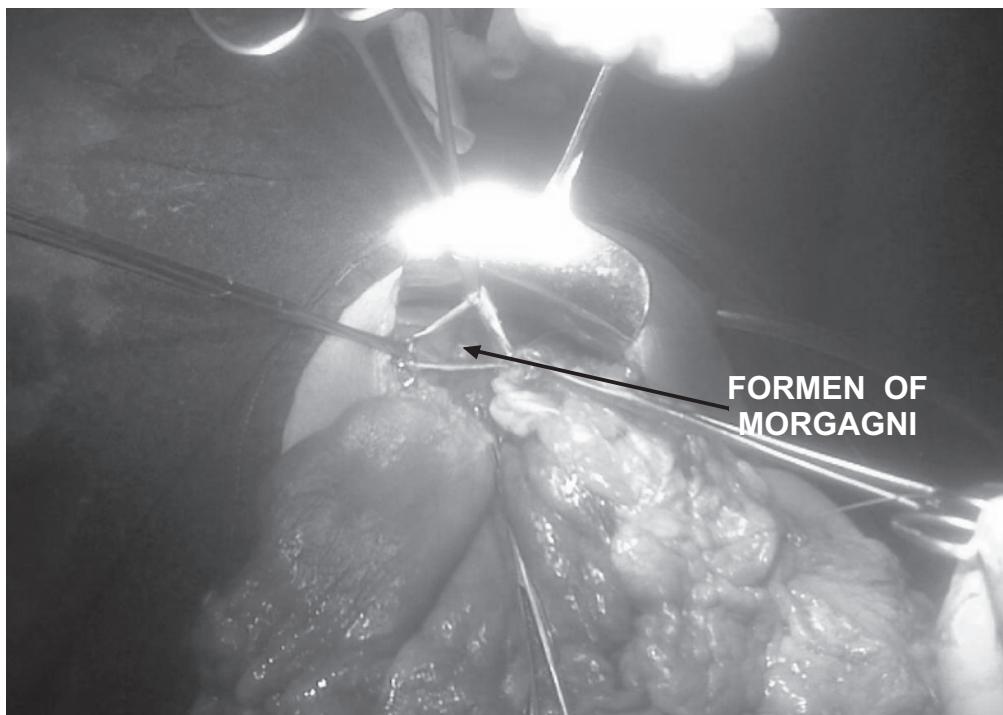
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IMAGE OF THE MONTH

HERNIATION THROUGH FORMEN OF MORGAGNI



A 25 year old male otherwise asymptomatic, presented with epigastric pain & Retching. On examination abdomen was normal. Auscultation of chest was normal. His lateral chest X-ray showed bowel loops on Rt side just behind sternum. On exploration of Abdomen, the colon and jejunum was seen entering the chest through a Congenital foramen just behind the Lt lobe of Liver. This was later diagnosed as Herniation Through Morgagni's Formen.

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