AMASI

AUGUST 2020



AMASI Newsletter



(Association of Minimal Access Surgeons of India)

Founder President

C.Palanivelu

Past Presidents

Ramesh Ardhanari Om Tantia Suresh Chandra Hari Dilip Gode

Immediate Past President

Tamonas Chaudhuri

President

B S Pathania

President Elect Jugindra S

Senior Vice President Varghese C J

Secretary Kalpesh Jani

Joint Secretary Abhimanyu Basu N.K. Chaudhry

Treasurer Ishwar R Hosamani

Zonal Vice Presidents

Manash R Sahoo Ramesh Dumbre G Laxmana Sastry Rajeev Sharma Deborshi Sharma



Executive Committee

East Zone

Makhan Lal Saha Alok Abhijit

West Zone

Roysuneel Patankar Kaushik Shah

North Zone

Bhanwar Lal Yadav Nikhil Singh

Central Zone

Devendra Naik Rajdeep Singh

South Zone

Parthasarathi R S Soppimath

Co-opted Member P. Senthilnathan Bhartendu Kumar Samir Rege Biswarup Bose Biju Pottakkat Rajesh Shrivastava Roshan Shetty Rakesh Shivhare Himanshu Yadav Manoj K Choudhury

Rajendra Mandia

1

IN THIS ISSUE

<u>Gurubhashayam</u>

In this issue, we have the good fortune of partaking wisdom from that rare species of a true General Surgeon, before the era of specializations and sub-specializations. Prof. Padhi, from Cuttack, talks to us about his journey through life and teaches us important life lessons.

<u>Guideline Series</u>

Dr. Suresh Chandra Hari, our past President, gives us the guidelines about performing 'Diagnostic Laparoscopy'.

Writing a Scientific paper

Dr. Pamit Tiwary discourses on writing the section on 'Discussion and Conclusion' in a scientific article.

Journal Watch

Dr. Nimisha Kantharia reviews the very contemporary article on the risk of transmission of COVID-19 infection through laparoscopy smoke.



As the term of the current Executive Committee draws to a close, we pay a special tribute to them in a unique manner.

Front Cover Art Work

A special thanks to Ms. Kashish Hukku-Jani for designing the front cover art work.

Plus the regular features like:

- MAS Masti
- Upcoming events update
- Past Event

Gurubhasyam - Prof. Ramesh Ardhanari

THE OUINTESSENTIAL GENERAL SURGEON

Prof. N. C. Padhi, Cuttack

Prof. Manash Sahoo, Head of Department of Surgery, AIIMS, Bhubaneswar, and a former (he insists that he still is and does not want the adjective 'former') student of Prof. Padhi, has the following to say:

I came to know Prof.N C Padhi Sir when I was a second year post graduate during 1992. He came across a s a calm and composed man, imparting knowledge as and when we required it. His first major impact on me was when he carried out the the first Whipples' operation at SCB Medical College, Cuttack, probably the first one to be done in Odisha and I was fortunate to be part of the onlooker team. In those days, when Heads of Department of Surgery my PG and required a recommendation for persuing senior residency and higher studies, I approached Padhi Sir and couldn't believe the recommendation that <u>n</u>ad written for me. I have still preserved it till date, such was the dedication and magnanimity of teachers like him who could encourage students and see them doing well in life - a person truly deserving of the epithet of Guru.

At my advanced age it is difficult to recall all I had done as a teacher in a medical college. But I believe that one's personality is built on one's upbringing, environment and interactions with people around oneself. Basically one's parents and siblings and teachers influence the personality development. My father was a very liberal parent. He never pressurized us into taking decisions about our future. On the other hand, he would flood our house with books, newspapers journals and magazines and never ask us about them. Naturally our curiosity was whetted and we got used to reading these materials which perhaps widened our world view greatly. Being a part of a large family, many of them civil servants, our ambitions were directed to that occupation. I chose to be a doctor because I wanted a stable life. I wasn't sure I would make it to the civil services at national level.

Pursuing MBBS at the Sriram Chandra Bhanj Medical College was a cake walk. Never brilliant but always well above average, I joined AIIMS Delhi as a house surgeon in Ophthalmology. I lasted there three months and left in a hurry. I had nightmares of large eyes looking at me. I switched to Irwin Hospital at Delhi (now LNJP Hospital) as a house surgeon in medicine, general surgery and orthopaedics for 15 months, till I applied for and managed to get a PG seat in surgery at Delhi University along with a scholarship. Delhi was a cultural shock after a lifetime spent in bucolic Odisha. I thrived in the competitive atmosphere. I was sometimes



treated with condescension to my chagrin, but my wide interest in general knowledge as a result of our childhood habit of reading anything we came across brought me at par with the smart Delhiites. After grueling hard work, with rotations through neurosurgery, plastic surgery, orthopaedic surgery, paediatric surgery, urology and cardiothoracic surgery, apart from the vast exposure to all forms of general surgery in a government hospital, we were trained to become the quintessential general surgeons. A few months after passing the tough exit examination, in 1964, I joined the Odisha Government Medical Education Service as clinical tutor in surgery, a junior teaching post.



Dr. Padhi (on the viewer's left) as a clinical tutor, along with his mentor Prof. Sukumar Das (in spectacles) and a colleague, along with a visiting nurse from Germany, in 1968

Dr. Padhi (on the viewer's left) as a elinical tutor, along with his mentor Prof. Sukumar Das (in spectacles) and a colleague, along with a visiting nurse from Germany, in 1968While, many of my friends diverted to super and sub specialties, I remained a true General Surgeon. Whether Gastrointestinal surgery, urology, orthopaedic surgery, neurosurgery, pediatric surgery or cardiothoracic surgery, it was all grist to my mill.

In my time in the 1960s, the teaching and the pattern of training was built on the British standards of FRCS. In fact at Delhi we had several visiting professors and RCS examiners who gave us talks. They were talking the same language as us. Now the situation is that a general surgeon has been reduced to a surgical GP. The PG in general surgery is a confused one. The syllabus keeps changing and remains vague.

With the expansion of knowledge and exponential growth of technology, both information and instrumentation, each super/sub specialty is a separate and distinct area, focusing entirely on a narrow field. In such an era ,a global and holistic evaluation of a patient becomes difficult. A single patient in a corporate hospital is sometimes evaluated by half a dozen super specialists. Even if a team of these specialists discuss amongst themselves, arriving at a line of treatment <u>mains confused</u>.

Our motto at that time was to first be a good general surgeon and then branch out. It is true that with the present state of vastly expanded knowledge it is impossible for one person to know everything. Someone described our training, rather unkindly, as a "Jack of all trades surgeon". But I personally feel that a general surgical PG should have wide exposure before he takes up a super specialty or a sub specialty in his super specialty.



Prof. N. C. Padhi, as Head of Dept of Surgery, SCB Medical College, Cuttack

A surgeon, for that matter, any medical specialist, has to continuously re-invent oneself. The advent of endoscopic procedures took a long time to evolve into the present status. We struggled with rigid scopes for more than seven decades before flexible equipments were developed. But once the endoscopic procedures evolved, there has been no looking back. In fact, there is no place for a surgeon unskilled in use of endoscopic facilities in today's practice. Using an operating microscope became essential in many procedures. Reliance on imaging technologies as diagnostic tools instead of the surgeons four senses of sight, smell, touch and hearing is a paradigm shift in surgical practice.

A good surgeon nowadays should be a good man (or woman), with good knowledge, well trained in his skill set and, most importantly, also know his or her limitations. Society is much less forgiving of a doctor's mistakes that was in the past.

One most important aspect that needs to be addressed is that a surgeon who works in an institution needs to be backed by a friendly and understanding administration, whether private or public. This is one area which needs a drastic change. The management of private medical institutions is in the hands of businessmen, whose focus is on profits, generated by patient billing and cost cutting. The Government is a very nebulous and vague boss, not knowing what the next department is doing. An attempt at coordination results in further confusion and bureaucratic red tape. Having worked all my life in the public sector, I am quite well qualified to comment As a citizen and a doctor, the solution lies in first separating the direct and indirect health care deliveries. There are many international models to build up our indirect health care systems, involving several wings of the Government. Preventive medicine, social medicine, public health measures, pollution control, family welfare, public relations and awareness and many other factors.

As a direct physician, I am concerned with medical education research, curricula, examinations, direct health care delivery systems and many other well known factors. Our regulatory bodies are really in utter chaos despite brave attempts by the Government. Obviously the Government needs to spend about ten times more money then it does now,that also on only direct health care. Doctors, nurses, medical technicians and hospitals should be separated from the usual administrative format and of now and restructured. This is hardly the platform to talk about all this. I leave with fond hopes of a better future.

With these few random thoughts I wish the AMASI, a group of brilliant, progressive nd innovative young men and women, well.

As my father used to say, "Progress is inevitable. It's only you who will take it in the right direction."



Prof. Padhi, being felicitated by student, Prof. Manash Sahoo.

outcome.

Guideline Series

The Process of Guidelines and Position Statement Formation under AMASI was envisioned in four phases:

Phase I: An expert reviews available evidence on each topic and suggests guidelines/position statement.

Phase II: The suggested guidelines/position statements are presented before a panel of experts who then critically evaluate them and suggest any amendments, if needed.

Phase III: The amended guidelines/position statements are presented before the members of AMASI through the newsletter and comments are invited, based on available evidence in published literature.

Phase IV: Once all the comments are analysed critically in light of the evidence submitted, any changes, if required are made and the final guidelines/position statements are released.

What follows is the phase 3 in the Guidelines and Position Statement Process of AMASI.

The AMASI members are requested to carefully go through them and if required, any changes can be suggest along with the evidence supporting such changes. Your suggestions along with the relevant references can be emailed to <u>amasiguidelines@gmail.com</u>

DIAGNOSTIC LAPAROSCOPY



Dr. Suresh Chandra Hari

Introduction

Diagnostic laparoscopy (DL) is a minimal invasive surgical procedure that allows the visual examination of intra abdominal organs to detect pathology. Diagnostic laparoscopy not only facilitates the diagnosis of intraabdominal disease but also makes therapeutic intervention possible.

To maximize the efficiency of the review, the article was divided as following categories:

- A. Staging laparoscopy for cancer
 - 1. Oesophageal cancer
 - 2. Gastric cancer
 - 3. Pancreatic and periampullary cancers
 - 4. Liver cancer
 - 5. Biliary tract cancer
 - 6. Colorectal cancer
 - 7. Lymphoma

- B. Diagnostic laparoscopy for acute conditions
 - 1. Acute abdomen
 - 2. Trauma
 - 3. ICU
- C. Diagnostic laparoscopy for chronic conditions
 - 1. Chronic pelvic pain and endometriosis
 - 2. Liver disease (including cirrhosis)
 - 3. Infertility
 - 4. Cryptorchidism
 - 5. Others

General Recommendations:

Diagnostic laparoscopy is a safe and well tolerated procedure can be performed under general or local anesthesia or IV sedation. It should be performed by an expert laparoscopic surgeon who can treat common complications. Laparoscopy should be performed with sterile technique in good theatre where resuscitation facility is available and continuous monitoring is necessary during and after procedure.

Operative technique:

Patient position: A classic DL is started with the patient in supine flat position. If pelvic pathology is suspected, especially in females, a modified lithotomy position with placement of a simple uterine manipulator transvaginally may be helpful.Subsequently, durng the procedure, depending on the abdominal quadrant being inspected, the table is tilted accordingly. The operating surgeon may have to move during procedure from the left side of the patient to standing between the legs of the patient or the right side of the patient depending on the area of interest. The screen should accordingly be moved to the opposite side of the operating surgeon.

Creation of pneumoperitoneum: Access can be obtained either through Veres needle or by the open technique after local infiltraion of anesthesia. Minimum pneumoperitoneum required for adequate visualization should be utilized.

Port location: The camera port is usually placed through the umbilicus unless contraindicated (midline scar, with suspicion of adhesions). One or two working ports may be required for bowel manipulation, handling omentum, sucion and biopsy. This may be placed under vision in a location to enable maximum utility depending on the pathology.

Systematic plan of inspection of Upper abdomen, Mid abdomen and Pelvis:

The first scan is rapid and all across the abdomen to look for presence of free fluid (ascitic fluid, blood, bile, enteric contents or pus) and any grossly evident pathology like presence of miliary abdominal tubercles or gangrenous bowel.

Upper abdominal inspection is done either from the right to left (if primarily liver pathology is suspected) or from left to right (if primarily a splenic/pancreatic pathology is suspected). Both lobes of liver, gall bladder, bile duct, stomach, duodenum, spleen, tail of pancrease, portal nodes, celiac nodes are looked for. Changes of fat saponification in the omentum and near the head of pancreas suggest pancreatitis.

Mid-abdominal examination is usually started by inspecting the omentum and placing it out of the way in the upper quadrants after tilting the table. The ileocaecal junction is identified and the small bowel is run through completely upto duodeno-jejnal flexure. Any peritoneal or retroperitoneal pockets are looked for (internal herniae). Mesentery is inspected for obvious enlarged lymph nodes. Then attention is diverted to large bowel starting from caecum, appendix, ascending colon, hepatic flexure, transverse colon, splenic flexure, descending colon, sigmoid and rectum. At different stages of the procedure, the table would have to be tilted in the appropriate opposite direction to allow good vision. Final stage is pelvic inspection with a Trendelenberg tilt to the table. The uterus and adnexae (in females), internal inguinal rings are inspected.

Diagnostic Staging Laparoscopy (DSL):

Diagnostic staging laparoscopy (DSL) is performed to determine the feasibility of the proposed curative cancer operation. DSL complements the preoperative assessment of radiographic imaging, which has limitations for identifying regional extension of the primary tumour and/or metastatic disease, such as peritoneal involvement.

The basic surgical principles for performing a diagnostic staging laparoscopy (DSL) are

- Full abdominal and pelvic evaluation
- Division of gastro-hepatic omentum
- Biopsy using cupped forceps or core needle
- Abdominal lavage for cytological study
- Retrieval of ascitic fluid for cytology and culture
- Identification and removal of enlarged lymph nodes
- Laparoscopic ultrasound.

INDICATIONS:

- Assessment for resectability with curative intent of the following primary digestive cancers:
 - · Oesophageal cancer at the gastroesophageal junction
 - Gastric cancer
 - · Pancreatic cancer located in the body or tail
 - Biliary tract cancer located in the proximal bile duct (cholangiocarcinoma) or gall bladder
- Staging prior to administration of neoadjuvant chemotherapy or radiation therapy
- Assessment of equivocal MRI, CT scan, or PET scan findings for primary, regional, or distant disease
- Assessment of inconclusive histology following radiographic-guided fine needle aspirations of suspicious sites of disease
- Assessment for resectability of liver metastasis in patients with colon or rectal cancer in combination with laparoscopic ultrasound

CONTRAINDICATIONS:

- DSL is not a debulking procedure and should not be used for that purpose.
- Inability to tolerate laparoscopy
- Previously confirmed metastatic or unresectable disease.

Morbidity and mortality Port site tumour implantation Vascular and organ injury

DL In I.C.U Setting

The use of DL in ICU setting for suspected intra abdominal pathology in critically ill, with potential complications in transport, which allows uninterrupted ICU therapy and reduces cost of intervention.

TECHNIQUE

- Portable cart
- Intubated patient
- Periumbilical entry
- Low pressures 8-12mm hg (max 15 mm hg)
- Angled scope
- Adds ports as required triangulation
- Short duration –average 30 mins

INDICATIONS:

- Abdominal pain or tenderness with other signs of sepsis without an obvious cause (like pneumoperitoneum, massive gi bleeding, small bowel obstruction),
- Fever and/or leucocytosis in an obtunded or sedated patient not explained by another identifiable problem (such as pneumonia, line sepsis, or urinary sepsis)
- Metabolic acidosis not explained by another process (such as cardiogenic shock)
- Increased abdominal distention not a consequence of bowel obstruction.

CONTRAINDICATIONS:

- Tense abdomen
- Multiple scars
- Abdominal wall sepsis
- Uncorrectable coagulopathy
- Uncorrectable hypercapnia
- Unable to tolerate pneumo and survive
- Obvious indication for surgery

DIAGNOSTIC ACCURACY

The diagnostic accuracy of the procedure is high, ranging between 90 and 100% (level II, III evidence). The main limitation of the procedure is for the evaluation of retroperitoneal structures. DL appears to have excellent result when evaluating for acalculous cholecystitis and ischemic bowel disease (level II, III). The procedure has been reported to prevent unnecessary laparotomies in 36-95% of patients (level III). DL is found to be superior to computed tomography (CT) or ultrasound of the abdomen (level.III) and also to diagnostic peritoneal lavage (Level II).

DL In Trauma

DL has been proposed for trauma patients to prevent unnecessary exploratory laparotomies which were associated with high morbidity and mortality.

INDICATIONS

- Suspected but unproven intra-abdominal injury after blunt or penetrating trauma
- · Suspected intra-abdominal injury despite negative initial workup after blunt trauma
- · Abdominal stab wounds with proven or equivocal penetration of fascia
- Abdominal gunshot wounds with doubtful intraperitoneal trajectory

- · Diagnosis of diaphragmatic injury from penetrating trauma to the thoracoabdominal area
- Creation of a trans-diaphragmatic pericardial window to rule out cardiac injury

CONTRAINDICATIONS

- Hemodynamic instability (defined by most studies as systolic pressure)
- A clear indication for immediate celiotomy such as frank peritonitis, hemorrhagic shock, or evisceration
- Known or obvious intra-abdominal injury
- · Posterior penetrating trauma with high likelihood of bowel injury
- Limited laparoscopic expertise.

DIAGNOSTIC ACCURACY

The sensitivity, specificity, and diagnostic accuracy of the procedure when used to predict the need for laparotomy are high (75–100%) (Level I–III). Negative DL is associated with shorter hospital stay (Level 1) and in recent study, awake laparoscopy in the emergency department under local anaesthesia resulted in discharge of patients from the hospital faster compared with DL in the operating room (level III) and comparative studies also suggest lower morbidity rates after negative DL compared with negative exploratory laparotomy (level II, III).

DL In Acute Abdomen

Emergency diagnostic laparoscopy is performed in patients presenting with acute abdomen and is to prevent treatment delay and complications without the need for a laparotomy.

INDICATIONS

Unexplained acute abdominal pain of less than 7 days duration after initial diagnostic workup As an alternative to close observation for patients with nonspecific abdominal pain

CONTRAINDICATIONS

- Hemodynamic instability
- Clear indication for surgery
- Severe abdominal distension
- Relative- Morbid obesity, Psychiatric patients, Pregnancy

DIAGNOSTIC ACCURACY

High diagnostic accuracy for the procedure 70-99%, (level I-III). It has also been proven to change the treatment strategy in 10-58% of patients (level II, III). One study demonstrated higher diagnostic accuracy of DL in the diagnosis of diverticulitis compared with CT of the abdomen or Barium enema.

DL FOR PELVIC PAIN

Chronic pelvic pain is typically defined as pelvic pain lasting more than 6 months with obscure etiologies. DL is an excellent tool for visualization and identification of etiology. It also facilitates therapeutic intervention and reduces the risk of open exploration.

INDICATIONS

• Chronic pelvic pain of unknown etiology after appropriate non-invasive workup.

CONTRAINDICATIONS

- Procedure intolerance
- Known pelvic adhesions which impede safe abdominal access

DIAGNOSTIC ACCURACY

DL has been shown to confirm the diagnosis of endometriosis in 78-84% of patients (level III). Random peritoneal biopsies and peritoneal fluid cytology have been shown to improve the diagnosis of endometriosis by 20% (level III). For pelvic inflammatory disease, the visual accuracy of DL alone was found to be 78% (sensitivity 27% and specificity 92%) (Level III).

Diagnostic accuracy of the procedure was significantly higher for more experienced laparoscopists.

DL For Impalpable Testis

DL has been used to decrease morbidity and surgical exploration for impalpable testis and furthermore, orchidopexy / orchidectomy can be performed safely using this technique.

DIAGNOSTIC ACCURACY

It identifies the location of a nonpalpable testis with 99-100% accuracy (level III). When laparoscopy is applied only for diagnosis, it can still prevent unnecessary abdominal explorations in 13-18% of patients (level III). Physical examination under anaesthesia prior to laparoscopy may identify up to 18% of nonpalpable testicles in the groin (level III).

DL For Infertility

It is the final step of workup in infertility and used as an adjunct to salpingography and chromotubation to identify adhesions and endometriosis and also, to treat simultaneously. PCOD can be visualised and treated simultaneously. Tubal peristalsis can be observed and its pathology can be staged accurately.

INDICATIONS

Infertility after normal Hysterosalpingography.

CONTRAINDICATIONS

- Inability to tolerate G.A
- No safe access due to dense adhesions

DIAGNOSTIC ACCURACY

- Accuracy after negative hysterosalpingography range between 21 and 68% (level III).
- Identified pathology includes intrinsic tubal disease (3-24%), peritubal adhesions (18-43%), and endometriosis (up to 43%)
- DL have a higher yield in secondary infertility (54%) compared with primary infertility (22%) (Level III) and has been shown to alter treatment decisions in at least 8% of patients (level III).

Conclusion:

Diagnostic laparoscopy is a useful and safe diagnostic adjunct in the hands of the expert laparoscopic surgeon and has excellent diagnostic accuracy. It should form a part of the armamentarium of every surgeon treating gastrointestinal and abdominal conditions.



Writing a Scientific paper

DISCUSSION & CONCLUSION IN A SCIENTIFIC PAPER

DR. PAMIT TIWARY MBBS, MS, FMAS



Dr. Pamit Tiwary

Our young Associate Professor from Madhubani, Bihar, has a secret dream – to get cast in the next sequel of 'Dhoom' or may be 'The Fast and Furious'. So he loves to keep doing wheelies on his superbike. Being somewhat of an introvert, he prefers to rit when no one is watching. Hmmm, Pamit, if you don't like anybody watching you do bike stunts, even when you are selected, maybe the 'Dhoom' franchise would be the best option.

Except for this machoistic aberration, he is otherwise a confirmed nerd – spends his free time watching TV and web series and the only sports he loves are the one that can played with a Playstation or Xbox!!

He prefers not to worry too much about the future, and likes living in the present. How about COVID-19? Nahhh, no worries. His hobbies include travelling and photography and travel photography.

His ultimate ambition is earn the gratitude of his patients. So a tip for all his patients: next time you are treated by him, no need to pay him, instead just give him a giant "Thank You" card!!

In any scientific paper, writing the discussion is probably the easiest section to write but the hardest section to get right.

It is the most important section of any paper where you highlight your data.

Discussion analyzes the data and relates them to other studies.

It evaluates the meaning of the results in terms of the original question or hypothesis and points out their significance.

The contents of an ideal discussion should include

- RELATIONSHIP between RESULTS and HYPOTHESIS; whether they SUPPORT or REJECT it.
- INTEGRATION of the results with previous studies to explain observed phenomena.
- Carefully discuss the information whether it is similar or different from other published evidence and why it is so.
- Non-statistically significant results can be discussed if they are suggestive or interesting, but cannot be made the basis for conclusions.
- Detailed description of data and results should not be repeated in discussion.
- Results and discussion can be joined in a single integrated section with minimal repetition. This is done where articles are short and simple.
- Avoid statements that go beyond what the results can support.
- Discussion should not simply be a repeat of the result section.

- Discussion should not be overstretched.
- Overstatement of the significance of the fndings or making very strong statements should be avoided.For example, better way of saying is "Findings of the current study support......" or "these findings suggest....." rather than "Findings ot the current study prove that...." Or "this means that....".
- Be humble with words by using terms like "possibly", "likely" or "suggests" because nothing is without question mark in in any research outcome.
- Do not discuss extraneous ideas, concepts or information not covered by the topic.
- Carefully address all relevant results, not just the statistically significant ones or the ones that support your hypothesis.
- Discuss weaknesses and discrepancies. If the results were unexpected, try to explain why.
- Discuss what further research would be necessary to answer the questions raised by the reults of the study.
- Explain what is new without exaggerating.
- Revision of results and discussion is not just paperwork. Emphasise that one will do further experiments, derivations, or simulations.
- At least a small paragraph should be devoted to honest critique of one's study. The author(s) should analyse and discuss what were the possible shortcomings of their study design, how they could have affected the results, what were the possible sources of bias and ways in which they could be circumvented.
- End the discussion with a summary of the principal points you want the reader to remember.
- Propose specific further study but do not end with the tired cliché that "this problem needs more study". ALL PROBLEMS IN MEDICAL SCIENCE NEED MORE STUDY.
- DO not close on what you wish you had done. Rather finish stating your conclusions and contributions.

CONCLUSION

This section shows how the work which has been done has led to advancement from the present state of knowledge. Without a clear conclusion, readers and reviewers will find it difficult to judge the work and whether it merits publication. A clear scientific justification for the work should be provided and indicate use of extensions. Suggest future experiments and highlight those works which are already underway. Evidence or results cannot draw conclusions, only people, scientists, researchers, and authors can! The conclusion is not just a restatement of the results, rather it is a final summative statement(s) that reflect the flow and outcome of the entire paper. Finish the conclusion with a concise, 3-5 sentence conclusion paragraph. A common error in this section is repeating the abstract or just listing experimental results. Trivial statements of the results are unacceptable in this section.

Article Reviewed:

The risk of COVID-19 transmission by laparoscopic smoke may be lower than for laparotomy: a narrative review

Yoav Mintz, Alberto Arezzo, Luigi Boni, Ludovica Baldari, Elisa Cassinotti, Ronit Brodie, Selman Uranues, MinHua Zheng, Abe Fingerhut

Surgical Endoscopy : https://doi.org/10.1007/s00464-020-07652-y



Dr. Nimisha Kantharia When you need an article reviewed urgently, or a scientific piece in a short time, the go to person is our reliable and prolific contributor from Mumbai. I am sure all our readers remember this bibliophile whose passion was the written word. Well, Nimisha, we are still awaiting that best-seller from you. Use this COVID quarantime times, lady and churn out a couple of pot-boilers!!

Analysis: (To be paraphrased from the article)

Introduction: This is a narrative review of the literature available on safety of surgical smoke, differences if any between smoke created during laparoscopy versus laparotomy, the containment and diffusion of viruses such as SARS CoV2 in surgical smoke and whether laparoscopy may actually be safer than laparotomy if perfect smoke containment and evacuation systems are used. It was written in response to the early statements, guidelines and recommendations issued by many major surgical societies globally favouring laparotomy over laparoscopy during the Covid19 pandemic.

Objectives: To answer the following three specific questions

- (1) Is there any difference in the surgical smoke created between laparoscopy and laparotomy?
- (2) Do surgical smoke and/or aerosols contain and diffuse viruses such as the CoV-2?
- (3) Will perfect containment and proper evacuation systems make laparoscopy safer than laparotomy?

<u>Results</u>: The three questions are answered as follows

- (1) There is no difference in the creation of surgical smoke between laparoscopy and laparotomy. The only differences concern the aerosol composition, related to the source of energy, or target organ, and aerosol diffusion, which is dealt with in answer (3).
- (2) So far, SARS CoV2 has not been demonstrated to be present in surgical smoke. Further there is no evidence that even if it were to be detected in surgical smoke, that the virus would remain viable, be able to replicate and result in transmission of infection.
- (3) In open surgery the smoke is directly released into the ambient operating room OR environment, while in laparoscopy there may be inadvertent release of pneumoperitoneum, release during instrument exchange and also planned release of pneumoperitoneum for specimen retrieval or wound closure. The greatest risk in laparoscopy is that surgical smoke can be released under high pressure and this can spread in the OR without control. However laparoscopy also provides the opportunity for smoke control in the form of filtration and evacuation systems and hence could be potentially safer than laparotomy.

Recommendations: The authors provide a number of tips and tricks to make laparoscopy safer, which are based on their personal experience. These can be summarised as follows:

- 1. Hand assisted laparoscopy is to be discouraged.
- 2. The authors have noted presence of the SARS CoV2 virus in 50% of faecal samples from Covid positiv patients and have advised common sense measures such as thorough lavage and complete closed evacuation of lavage fluid as well as clamping up and down stream before gut resection.
- Minimum pneumoperitoneum required to complete surgery safely should be used 10 mm Hg.
- 4. Avoid more than 10-15 degree Trendelenburg position, if at all it is used.
- 5. Prefer disposable over reusable trocars, and in case of reusable ones check air tightness before each surgery.
- 6. Avoid opening stop cocks of trocars during surgery and keep them sealed instead.
- 7. One or two trocars should be connected via Luer Lock mechanism to a filter for smoke evacuation...and ideally this smoke would enter another evacuation system or be filtered again before release into ambient OR air.
- 8. Smoke should be evacuated continuosly and not just when it hinders visibility.
- 9. Instrument exchange should be swift and precise and parallel to the trocar shaft.
- 10. Minimise torque on trocar.
- 11. Pneumoperitoneum should be completely desufflated before port closure or specimen extraction.

- 12. To ensure complete evacuation of pneumoperitoneum, several different ports can be utilized for desufflation, and whenever possible through the most anti-gravity port.
- 13. If the Airseal port[®] is used, it should be connected to another smoke evacuator with an ULPA filter or used in Smoke Evacuation Mode where the tube set is connected to two standard trocars in a "closed loop" configuration, one for insufflation and one for active smoke evacuation through a 0.01 micron ULPA filter.
- 14. Bipolar energy source should be preferred where possible. Lowest possible power of energy source should be used and short pulses of energy preferred.
- 15. If a drain is indicated, it should be tubular, inserted through an airtight skin incision, and clamped closed until the abdomen is completely desufflated.
- 16. All instruments should be cleaned by the scrub nurse after each use and exchange
- 17. All OR personnel should wear a highly efficient tight seal-fit mask when in the OT.

Conclusion: The authors endorse the use of laparoscopy during the Covid 19 pandemic for all surgeries where the patient's condition permits it. They also state that as laparoscopy is performed in a contained environment and the intra-peritoneal air borne particles can be safely evacuated, laparoscopy may be safer than open surgery.

Review: (this should be the reviewer's opinion):

Commentary: The authors have attempted in this narrative review to provide literature evidence for three questions in the hope of clarifying safety of laparoscopy during Covid 19 pandemic.

Although a narrative review their methodology appears sounds as they followed PRISMA criteria to search multiple data bases as well as searching major journals with specific Covid 19 sections. The questions asked are logical and are answered by the authors as well as current available literature would permit. It's also commendable that the authors have provided a common sense and experience based list of recommendations to be followed in case of laparoscopy.

Limitation:

The authors themselves note that the studies they included are not randomised and only one was a comparative study and hence the level of evidence is low. Furthermore there is a wide variety of interchangeable terms like plume, smoke etc. which adds to confusion, in addition to database search limitations.

In addition to this, it must be noted that narrative reviews have their own limitations and one of these important limitations is that they may be written in a way that supports conscious or unconscious biases that the authors hold. For example, the very fact that recommendations are made regarding use of laparoscopy during this pandemic and are based on actual author experience suggest the bias the authors hold towards laparoscopy and this has to be taken in to account while considering the article.

Furthermore, as the authors, state an absence of evidence is not evidence of absence, and one cannot conclusively derive that laparoscopy is safer than laparotomy in this pandemic or vice versa.

Takeaway Point:

Laparoscopy is not inherently unsafe as compared to laparotomy in the transmission of Covid 19 virus and yet in the absence of clear cut measures, due precautions must be employed in using laparoscopy in situations where it is indicated and patient conditions permit.

Prashna India

Dr VK Kapoor, Professor of Surgical Gastroenterology at SGPGIMS Lucknow, a member of AMASI, has launched a FREE online education portal - Prashna India - where students/ surgeons can ask (post) their questions. The questions are answered by experts in respective topics/ areas and the answers are posted online.

In the last 5 years, more than 300 students/ surgeons from all parts of India have asked more than 700 questions which have been answered by more than 70 experts from India as well as abroad. These questions and answers are available on Prashna India website for free.

Prashna India also conducts live online case presentations/ discussions and open-house question-answer sessions called Ru-Ba-Ru. More than 25 such sessions have been conducted so far with a maximum of 44 students from 22 centers attending one such session. Audio recordings of these sessions are available on request. Videos of last two Ru-Ba-Ru sessions are available to view on Facebook site of Prashna India 29th January and 3rd February 2019.

Prashna India can be visited at http://prashna-india.weebly.com/

FAREWELL TO THE EXECUTIVE COMMITTEE 2018-2020

As our allotted term draws to an end, I look back on the past two years with mixed feelings. I am proud and extremely fortunate to have been associated with this talented and dynamic group of people from all across India. There is a sense of achievement as this Executive Committee, through the untiring efforts of all its members saw several important landmarks being established:

- 1. Our membership crossed 10000 (ten thousand) in number, making us one of the largest, if not the largest, minimal access surgical body in the world.
- 2. We were able to do on an average two academic programs a month, including skills courses, CMEs, regional conferences, workshops, rural surgery camps. Even after we had to postpone around eight programs due to the Covid-19 pandemic onset in March, we did almost a month of continuous webinars.
- 3. The AMASI newsletter has become a fairly regular feature, carrying a mixed bag of items of academic interest, philosophical musings from our seniors, humor and much more.
- 4. Four batches of DipMAS completed and registration for the fifth started
- 5. College of MAS website launched with academic lectures and videos which can be freely accessed by members.

There is also a tinge of sadness as we had to postpone AMASICON2019 in Delhi, which was going to be a grand affair. But this has only strengthened our resolve to make the next AMASICON even better and grander.

What is the secret that makes the EC members work so tirelessly for AMASI activities? What spurs these individuals to devote time to AMASI and its affairs, even when it intrudes into their professional and personal lives? We asked them and all of them had a common answer – working in AMASI makes them feel more active and dynamic, and, in short, younger. So, as a tribute to all our young AMASI members, we are acknowledging their contribution with a photograph that reflects how young we feel they are, and which gives you the idea of the energy and enthusiasm they bring to the association.

Founder President Prof. C. Palanivelu



Advisory Committee (Past Presidents)









Prof. Ramesh Ardhanari

Dr. Om Tantia

- Dr. Suresh Chandra Hari
- Prof Dilip Gode



Immediate Past Dr. Tamonas Chaudhu...



President Prof. B. S. Pathania



President Elect Dr. Jugindra S



Senior Vice President Dr. C. J. Varghese



Honorary Secretary Dr. Kalpesh Jani

Joint Secretaries:



Treasurer Dr. Ishwar Hosamani



Dr. Abhimanyu Basu



Dr. Navneet Chaudhry



Prof. Manash Sahoo

Zonal Vice-Presidents



Dr. Ramesh Dumbre



Dr. G Laxmana Sastry



Prof. Rajeev Shama

East Zone Representatives:



Prof. Makhan Lal Saha



Prof. Deborshi Sharma



Dr. Alok Abhijit

West Zone Representatives:



Dr. Roy Patankar



Dr. Kaushik Shah

North Zone Representatives:



Prof. Bhanwar Lal Yadav

Central Zone Representatives:



Prof. Rajdeep Singh

Central Zone Representatives:



Dr. S. Soppimath



Dr. Nikhil Singh



Dr. Devendra Naik



Dr. R. Parthasarathi

Co-opted Members:



Dr. P. Senthilnathan



Dr. Bhartendu Kumar



Prof. Samir Rege



Prof. Biswarup Bose



Dr. Roshan Shetty



Prof. Biju Pottakar



Dr. Rakesh Shivhare



Dr. Rajesh Shrivastava



Prof.Rajendra Mandia



Dr. Manoj Kumar Choudhury



Dr. Himanshu Yadav



Secretary Mr. Prabhu (AMASI HQ)

The COVID-19 pandemic played havoc with the academic programs planned. AMASI had already planned some 8 events between March and October 2020, including AMASICON2020 at New Delhi. MOUs had been signed with local organizers and preparations for all these events were in full swing when we were hit with the first lock-down and we immediately could see the writing on the wall.

As the SARS-CoV-2 virus spread its tentacles across the nation, AMASI pitched in will all its resources to help the nation fight the pandemic. At the outset, the EC had an emergency meeting and pledged 20 lakhs to the PM CARES fund for fighting the pandemic. Our EC members in different places contributed in their individual capacities in various activities. AMASI has also pledged its support to the initiative of ICHA (Indian Consortium of Healthcare Association) in its project of ICHA MITRA, an online app to provide help and support to healthcare workers fighting against the Corona pandemic.

While initially, academics came to a stand-still, we did not wait long before we started an online session of video lectures with eminent faculty across the nation on every weekday for almost a month. These lectures were attended by hundreds of our members across the nation and were much appreciated, as per the feedback received. Due to the vagaries of internet, many of our members were not able to attend the lectures and listening to their requests, we started a separate website for the academic wing under the aegis of College of AMASI. All the video lectures were posted on <u>www.collegeofmas.com</u>. AMASI members can freely access these lectures. We are also planning to place master videos of different surgeries from leading faculty on the website and hope that the members make optimum use of the same.

Upcoming Events

Obviously, with the current situation, physical events are not being planned. But, we are very active and have decided to explore various options to carry out online events. Initially, they may be on trial basis, but once we rule out the kinks, we will implement them with the usual AMASIan vim and vigor

Event	Venue	Date	Organizer
Safe Lap Chole Program	Coimbatore	August, 2020	Prof. C. Palanivelu, Dr. Parthasarathi
e-FMAS Skill Course & Examination	Mangaluru	11 th -13 th September, 2020	Dr. Roshan Shetty
Safe Lap Chole Program	Mumbai	September 2020	Dr. Roy Patankar



AMASI

Association of Minimal Access Surgeons of India

45-A, Pankaja Mill Road, Ramanathapuram, Coimbatore - 641 045. Ph : 0422- 4223330

Email : amasi.india@gmail.com

Web : <u>www.amasi.org</u>