ISA
Indian Society of Anaesthesiologists
Delhi Branch
Eternal Vigilance

ISACON DELHI ANNUAL CONFERENCE

Workshops: 1 September 2023 | Conference: 2-3 September 2023

ANAESTHESIA TIMES

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(Delhi Branch)

ANAESTHESIA: A TIGHTROPE WALK

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(Delhi) Branch Message

Dear ISAians

I take pride in saying that we had a great show at the Annual Conference at Raddison Blu Mahipalpur. All could be because of great efforts of the executive team as well as the participating faculty who did their best to give us this memorable event. It was heartening to see a greater number of PG students.

Partipation of National faculty was another feather in our cap.
I pray for the great cohesion of Delhi ISA in future to keep it soaring high while taking care of everyone's interests.

During a tenure of one year one keeps on wondering how time flies by organising event after event. There's a great versatility in Delhi which is our strength.

I wish you all season's greetings well in advance and pray for the prosperity of entire Delhi ISA family.

Best wishes
Dr. (Prof.) Mohandeep Kaur
President ISA Delhi Branch
HOD Anaesthesia

Vice President ISA

(Delhi) Branch Message

Dear Delhi ISAians

Warm greetings

The year 2022-2023 has been an incredible year for Delhi ISA. The year long activities under aegis of Delhi ISA, culminated into the grand finale of ISACON 2023 on 1-3rd Sep.

I would like to extend my gratitude and thanks to all the delegates, faculty, ISA Delhi office bearers and the Department of Anaesthesia ABVIMS and Dr RMLHospital,for their wholehearted participation for making ISACON 2023 such a successful event!!

We take great pride in being an Anaesthesiologist and celebrating one of the most' Important Days' for all the Anaesthesiologists worldwide, THE WORD ANAESTHESIA DAY!!

Looking forward to the fun-filled and enjoyable evening with you all

Long live ISA

Dr Neerja Banerjee
Vice President Delhi ISA

Secretary ISA

(Delhi) Branch Message

Respected Delhi ISAians,

With fall stepping right in, I hope that your hearts stay warm like the orange undertones of the fallen leaves.

The ISACON hosted by our Delhi branch earlier this month was applauded by all. Everyone's participation and contribution made this event a grant success. The delegates and dignitaries in attendance actively participated and appreciated all the aspects of this conference.

We extend our heartiest congratulations to team RML for the hard work that they put in to bring this event to life.

Another feather in ISA Delhi's hat being that all the respected members of GC ISA National attended the flag hoisting and inauguration ceremony.

Lastly, I would like to invite you all to the world Aneasthesia day celebrations, details of which will be shared with you all shortly.

Long live ISA! Long live ISA Delhi!

Warmest regards

Dr. Anuvijayant Goel
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From the Editor's Desk

Message

Dear Delhi ISAians

It is a pleasure to release the 10th Newsletter of ISA Delhi Branch.

The ISA Delhi Annual Conference has just finished with all vigour and glory. There were 6 pre-conference workshops in different hospitals which had great participation of residents. The conference involved lots of academic activities besides interaction among faculties.

In this issue, continuing the series, there are pre operative recommendations for a patient with substance abuse. The glimpses of Annual Conference and Pre Conference workshop are highlighted in this issue.

This issue also has a poem on surgeon's perspective of anaesthetist written by a gynaecologist besides pet corner, Incredible India and humour stop.

Thanks for giving the inputs for the newsletter. Please do keep sending the articles

Long Live ISA

Long Live ISA Delhi

Dr. Akhilesh Gupta
Editor-in-Chief
ISA Delhi Branch

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ISA DELHI

Schedule – ISA Delhi Clinical Meet 2022- 2023

- ISA Delhi Clinical meets as per the schedule. Each Meeting shall accommodate for presentations 1-2 Hospitals in addition to their own Institute presentations.
- Total of 4 presentations and a quiz – 1-2 Original Articles 1-2 case series/case reports/technical presentations. One quiz of around 10 questions.
- Zonal GC from the zone of HOST institute along with EC members from the Host and other participating Institutions of ISA Delhi shall coordinate in coordination and approval with ISA Delhi Headquarters – President and Secretary.

Attended by all ISA office bearers, Faculties and residents from various medical colleges, ISA Members from various Government hospital and Private practitioners.

Day 3rd Wednesday	**Primary Institute/Hospital. Each Clinical meet shall accommodate 1-2 Hospitals for presentations in addition to their own institute presentations.**	**Contact Person**
December 2022	**UCMS**	**Dr. R S Rautela. 9625900699/9868399699**
Jan 2023	**VMMC and Safdurjung Hospital**	**Dr. Vandana Talwar 9811352251 drvandananatalwar@gmail.com**
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May 2023	**Apollo Hospital**	**Dr. Meera Kharbanda 9810063988 meera.kharbanda@yahoo.com**
June 2023	**Max Hospital Saket**	**Dr. Aparna Sinha 9810035503 apsin@hotmail.com**
July 2023	**Deen dayal Hospital**	**Dr. Sushmita Sarangi 9818990113**
Aug 2023	**LHMC**	**Dr. Maitree pandey 9810570515 maitreepandey@gmail.com**
Sep 2023	**Sir Ganga Ram Hospital**	**Dr. Jayashree Sood 9811294608 drjayashreesood@gmail.com**

ISA Clinical Meet

9th Annual Meet Fortis Hospital, Shalimar Bagh





The monthly clinical meeting of Indian Society of Anaesthesiologists, Delhi chapter was held at Fortis Hospital, Shalimar Bagh on 31st July 2023. The event started with the hoisting of the ISA flag. The welcome address to all the esteemed guests and students was delivered by Dr. Archana Bajaj, Medical Superintendent, Fortis Shalimar Bagh. This was followed by felicitation of ISA Delhi governing body members: Dr. Rajiv Gupta, GC ISA National; Dr. Neerja Banerjee, Vice President, ISA Delhi; Dr. Anuvijyant Goel , Secretary and Treasurer, ISA Delhi; Dr. Akhilesh Gupta, Editor, ISA Delhi; Dr. Arun Mehra, GC West, ISA Delhi; Dr. Maitree Pandey, Past President, ISA Delhi. The ISA Delhi newsletter, “Anaesthesia Times-July 2023” was also released. The highlight of the evening were the clinical presentations done by the Departments of Anaesthesia, Critical Care and Cardiac Anesthesia and this was well received with a lively discussion and question answer session. The academic session was succeeded by a lively quiz that everyone enjoyed.

Case Presented

1. Pulmonary Embolism in perioperative Period. Speaker- Dr Harjeet Singh
2. High Flow Nasal Therapy in perioperative Period. Speaker- Dr Vishal Garg
3. Airway Management for Bronchoscopic removal of aretynoid tumour. Speaker- Dr Mehak Kakkar

The event was attended by more than a hundred illustrious anaesthesiologists of Delhi NCR, which included Dr. Surendra Mohan, Head of Anaesthesiology at Medanta Medicity, Anaesthesiology teams from Lady Hardinge Medical College and Dr. RML Hospital. The vote of thanks was delivered by Dr. Amit Prakash, Additional Director, Cardiac Anesthesia. The contribution and support from Mr. Deepak Narang, Facility Director, Dr. Archana Bajaj ,Medical Superintendent, the entire administrative and marketing teams was phenomenal. Added to these were the acceptance of change of schedule by the surgeons and the hard work put in by all team and O.T members to make this event a roaring success. Keeping in accordance with the green initiatives of Fortis Hospital, Shalimar Bagh, all the attendees were presented with indoor plants. The proceedings came to a close with high tea and fruitful interaction among all present.

The 62nd Annual conference of Indian society of Anaesthesiologist

The 62nd Annual conference of Indian society of Anaesthesiologist, Delhi branch 2022-2023 was organised by Department of Anaesthesia, ABVIMS and Dr RML Hospital on 1stseptember to 3rd September. Dr Mohandeep Kaur, Head of the Department Anaesthesia, President ISA Delhi Branch and Organising President of the conference, had been the constant driving force, her guidance, support, inspiration and taking every minor detail into consideration made the conference successful.

Under aegis of ISA Delhi Branch six Hands-on workshop were conducted in various esteemed institute on 1st September 2023.

1. Anaesthesia case scenarios- Simulation workshop conducted at ABVIMS and Dr RML Hospital.
2. Airway Management (Basics and Thoracic) conducted at Maulana Azad Medical College.
3. Point of care ultrasound (POCUS) conducted at Sir Ganga Ram Hospital.
4. Trauma Resuscitation conducted at Vardaman Mahavir Medical College.
5. Ultrasound guided nerve Blocks (Truncal) conducted at Lady Hardinge medical college.
6. Hemodynamic monitoring conducted at All India Institute of Medical Sciences.

The workshop was conducted by experienced and distinguished faculties & attended by around 160 delegates where they had active participation, learned practical skills and troubleshooting.

It was followed by two days of conference which brought over 400 faculty and delegates together. It was a perfect amalgam of academics, sharing of research work, interactive sessions, pros and cons, panel discussion along with scrumptious food and fun.

The conference was started with the ISA flag hoisting by distinguished ISA National and ISA Delhi Office bearers, Dr Mohandeep Kaur President ISA Delhi, Dr Neerja Banerjee Vice President ISA Delhi, Dr Anuvijayant, Secretary ISA Delhi, Dr Akhilesh Gupta Editor ISA Delhi, and GC members.

The inauguration and lamp lighting were done by Chief Guest Dr Ajay Shukla, Director, and Medical Superintendent & Dr Ram Chander, Dean of ABVIMS & Dr RML Hospital. The guest of honour, Dr M.V. Bhimeshwar, President ISA National, Dr Jigeeshu Vasistha Divatia, President Elect ISA National, Dr M. D Kaur President ISA Delhi and Organising President of the conference, Dr Mahesh Kumar Sinha Vice president ISA National, Dr Neerja Banerjee, Vice president ISA Delhi and Organising Secretary of the conference, Dr Sukhminder Singh Bajwa, Honorary Secretary ISA National ,Dr Anuvijyant Goel ,Honorary Secretary and Treasurer ISA Delhi and Organising Treasurer for this conference, Dr Rakesh Garg ,Editor -in – Chief Indian Journal of Anaesthesia (IJA), Dr Akhilesh Gupta, Editor ISA Delhi and Organising Joint Secretary of the conference, Dr. Maitree Pandey, Past President ISA Delhi and all GC Members.

The 3-day journey imparted knowledge, brainstorming, current development in form of didactic lectures,

The 62nd Annual conference of Indian society of Anaesthesiologist

pro-con session, video session taken by learned and erudite speakers. Interesting panel discussions engaged the faculties and delegated in healthy debate. A thought-provoking panel discussion was conducted on current burning topic “Chat GPT- Friend or Foe” and Past president Oration on “Artificial intelligence in simulation in anaesthesia” took us in future of anaesthesia.
Enthusiastic residents, who are current and future backbone of anaesthesia fraternity, brimming with knowledge and confidence attended the event wholeheartedly, presented and participated in TN Jha Award, Free papers, and E-posters. Two new Awards were introduced this time to motivate the research work and find out young budding talent in the form of “Dr Ram Das Pramanik Best Obstetric Paper Award” and “Dr Rajiv Gupta Young Talent Award”.

An exciting and mind-boggling quiz was conducted, wherein four teams participated, two teams were from ABVIMS & Dr RML hospital and other two team were from All India Institute of Medical Sciences, Delhi. To keep the audience engaged there was interesting audience sessions.

Closer to the end of conference ISA general body meeting was held. Followed by most awaited Valedictory function and Award distribution.

Such conferences keep the Academician and researchers ongoing and progressive as they provide platform for knowledge sharing, skill development, skill enhancement, continuous learning and brings the whole fraternity together.

Pre-Conference Workshop

ISACON Delhi Annual Conference













Relaxation after Hard Work








Academic Activity ISACON Delhi 23

Academic Activity ISACON Delhi 23

Academic Activity ISACON Delhi 23

PAC PROTOCOLS

Pre-anaesthetic evaluation for patients with history of smoking and substance abuse

Patients with a history of smoking or substance abuse can present with several challenges to the anaesthesiologist during the perioperative period. A thorough preoperative evaluation is essential in these patients. In addition to screening, the evaluation should include an assessment of the effects of the substance abused, associated diseases, end-organ damage and an awareness of the potential perioperative risks so that appropriate anaesthetic management can be planned accordingly.

Pre-anaesthetic evaluation for patients with history of smoking

1. **Patient particular**
   Name, Age, Sex, Admission no., Ward/Bed No., Height, Weight/BMI, Surgery unit, Diagnosis, Surgery

2. **Informed consent**

Emphasis on increased risk of perioperative pulmonary complications (bronchospasm, pneumonia, sputum retention, prolonged weaning from mechanical ventilation), cardiovascular complications (myocardial ischemia, arrythmias), acute stroke, wound infections, delayed wound healing, reduced bone fusion, increased length of postoperative ward/ICU stay.

3. **History**

a. Presenting complaints
   Mainly related to the primary diagnosis for which surgery is planned.

b. History of present illness

i) Only relevant points to be documented

ii) Negative history pertaining to chronic cough, purulent sputum, dyspnea on exertion, wheezing, repeated chest infections, hemoptysis, recent weight loss, reduced appetite, hematemesis, heartburn (smoking predisposes to COPD, repeated chest infections, Ca lung, peptic ulcers, GERD)

iii) Assessment of functional capacity (in terms of METS) and dyspnea if present can be graded using Modified Medical Research Council (mMRC) Dyspnea Scale:1

Grade Description of breathlessness
0 I only get breathless with strenuous exercise
1 I get short of breath when hurrying on level ground or walking up a slight hill
2 On level ground, I walk slower than people of the same age because of breathlessness, or have to stop for breath when walking at my own pace
3 I stop for breath after walking about 100 yards or after a few minutes on level ground
4 I am too breathless to leave the house or I am breathless when dressing

c. Past history

Known history of COPD, bronchial asthma, hypertension, CAD, CVA, diabetes mellitus, thyroid disease, any other chronic illness or any previous hospitalizations. (COPD changes suggestive of chronic bronchitis or emphysema commonly seen in chronic smokers due to inflammatory airway changes, hypersecretion of mucus, destruction of lung parenchyma; accelerated atherosclerosis increases the risk of myocardial infarction, stroke and sudden death)

d. Drug history
Any previous or current medications intake (esp. inhalers, bronchodilators, steroids)

e. History of allergies, drug/transfusion reactions

f. Family history
Emphasis on any second-hand smoke exposure

g. Social history

i) Amount and duration of cigarette smoking (pack years- no. of packs smoked per day x no. of years of smoking, indicator of degree of exposure to tobacco smoke, usually >20 pack years predisposes to health risks related to smoking)

ii) Cessation of smoking – to ascertain whether patient is an ex-smoker (duration of abstinence important) or a currently active smoker

Relevance:

Time course	Beneficial effects of smoking cessation2
12-24 hrs	Decreased CO and nicotine levels
48-72 hrs	COHb levels normalized, ciliary function improves
1-2 wks	Decreased sputum production
4-6 wks	PFTs improve
6-8 wks	Immune function and metabolism normalizes
8-12 wks	Decreased overall postoperative morbidity and mortality

iii) Concomitant alcohol/drug abuse

h. Anaesthetic history

i) Through direct patient interview and checking of previous records if any
ii) History of any previous surgery/exposure to anaesthesia
iii) Type of anaesthesia administered and the reasons for the choice
iv) Any preoperative or intraoperative adverse events
v) Any postoperative complications / ICU stay / need for mechanical ventilation

4. Physical examination

a) General physical examination

i) Built and nutrition: chronic weight loss, cachexic in emphysema
obese in chronic bronchitis

ii) In severe long-standing COPD, patient can be in cor pulmonale- peripheral edema, raised JVP

iii) Cyanosis- may be seen in chronic bronchitis (due to hypoxemia)

iv) Yellowish pigmentation of nails- ‘nicotine sign’, if clubbing also present- could indicate Ca lung

b) Vital signs

i) Tachycardia, hypertension seen in active smokers (due sympathetic stimulation caused by nicotine)

ii) Tachypnea can be seen in chronic emphysema, respiratory failure

iii) Raised temperature- might indicate presence of lower respiratory tract infection

iv) Pulse oximetry- low oxygen saturation can be encountered in chronic bronchitis or patients in respiratory failure

c) Airway examination
Concomitant tobacco chewing might lead to submucous fibrosis- anticipated difficult airway

d) Respiratory system

i) Inspection
Use of accessory muscles of respiration, pursed lip breathing, paradoxical abdominal movements (signs of increased work of breathing in COPD) Barrel-shaped chest- seen in chronic emphysema

ii) Palpation
Widened antero-posterior chest diameter- emphysema

iii) Percussion
Hyper resonant note over lung fields- seen in emphysema

iv) Auscultation
Diffusely decreased breath sounds - due to lung hyperinflation in emphysema
Ronchi - due to narrowing of airways in COPD
Crepitations- may indicate lower respiratory tract infection

v) Bedside Pulmonary Function Tests
Sabrasez breath holding test- indicator of cardiopulmonary reserves
Single breath count- measure of vital capacity
Greene & Berowitz cough test- ability to generate an effective cough
Forced expiratory time (>6sec- COPD)

e) Cardiovascular system
Accentuated second heart sound- seen in cor pulmonale
(Persistent pulmonary damage due to COPD in smokers- increased right-sided heart pressure- eventually resulting in right heart failure or cor pulmonale)

f) Gastrointestinal system
Hepatomegaly- can be seen in cor pulmonale

g) Any other significant physical examination finding

5. Laboratory investigations

Currently smoking patients to be considered ASA Physical Status Class II at the least, further depends on presence and level of control of other co-morbidities.3
Patients' ASA Physical Status Class and the type of surgery being planned both need to be considered

while ordering laboratory investigations preoperatively (NICE Guidelines)4

i) Complete blood count:
Hemoglobin/Hematocrit- patient can have anemia (due to chronic disease, cachexia) or polycythemia (due to chronic hypoxemia)

TLC/DLC- can be raised in presence of lower respiratory tract infection

Platelet count- as a preoperative baseline value, can be decreased in severe sepsis

ESR- may be raised due to infection, anemia

ii) Blood sugar:
Fasting/post prandial/random- To ascertain glycemic control in known diabetics
To detect undiagnosed cases
Might be deranged in patients on long-term steroids

iii) Kidney function tests: Blood urea, Serum creatinine, Serum electrolytes

iv) Liver function tests: Serum bilirubin (total, direct, indirect), SGOT, SGPT, ALP, serum proteins (total, albumin, globulin), Coagulation profile

Can be deranged in cases of congestive hepatomegaly due to cor pulmonale, concomitant alcohol abuse

v) Urine examination: Routine, Microscopy, Pregnancy- as indicated

vi) Blood group, Viral markers (esp. in concomitant drug abusers)

vii) X-Ray Chest:

To look for any evidence of lower respiratory tract infection

COPD changes- findings in chronic bronchitis are non-specific and include increased bronchovascular markings and cardiomegaly (cor pulmonale), emphysema manifests as lung hyperinflation with flattened hemidiaphragms, a small heart, and possible bullous changes.
To look for any pleural effusion, masses, nodules or fibrotic changes in lung parenchyma (to exclude Ca lung)

viii) 12-lead ECG:

Typical ECG findings in emphysema: Prominent P waves in the inferior leads and flattened or inverted P waves in leads I and aVL; right axis deviation; low voltage QRS complexes, especially in the left precordial leads (V4-6); clockwise rotation of the heart with reduced R wave progression (persistent S wave in V6, complete absence of R waves in leads V1-3)
With development of cor pulmonale: right atrial enlargement (P pulmonale), right ventricular hypertrophy, right bundle branch block (due to RVH)

ix) 2D-Echocardiography:

Indicated in patients with clinical features of right-heart failure
Common findings in COPD patients- pulmonary hypertension, tricuspid regurgitation, cor pulmonale, left ventricular dysfunction

x) Pulmonary function tests:
Preoperative PFTs are indicated in patients who have a history of smoking and are symptomatic (as per Tisi and ACP guidelines)

Tisi guidelines for preoperative spirometry:5
Age > 70 yrs.
Morbid obesity
Thoracic surgery
Upper abdominal surgery
Smoking history and cough
Any pulmonary disease

ACP (American College of Physicians) guidelines for preoperative spirometry:6
Lung resection
H/o smoking, dyspnoea
Cardiac surgery
Upper abdominal surgery
Lower abdominal surgery
Uncharacterized pulmonary disease (defined as history of pulmonary disease or symptoms and no PFT in last 60 days)

Spirometric findings in COPD:
Decreased FEV1 (< 80% of predicted value)
Decreased FEV1/FVC ratio (<0.7)
“Coved” appearance of the expiratory limb of flow-volume loop

xi) Arterial Blood Gas analysis:

Indicated in patients who are hypoxic or require supplemental oxygen.

6. Preoperative orders

i) Nil per orally orders (as per preoperative fasting guidelines)
ii) Written informed consent (as discussed earlier)
iii) Orders for arranging blood products (as needed)
iv) Preoperative optimization of the patient: (essentially on the lines of COPD)

a. Cessation of smoking
Patients should be motivated to quit smoking at any point of time before surgery. (although reduction in incidence of postoperative complications is seen when smoking is stopped for more than 8 weeks, beneficial effects of abstinence are evident in as early as 12 hours – as discussed previously)

b. Control of infection
To be treated with appropriate antibiotics
In case of upper respiratory tract infection- ideally wait for 2-3 weeks.

c. Bronchodilatation
Benefits are seen even in patients without bronchospasm.

Use of preoperative inhaled beta2-agonists and steroids reduces the incidence of perioperative bronchospasm.

d. Hydration and mucolytic therapy
Helps in loosening of secretions
Chest physiotherapy clears secretions from the chest

e. Incentive spirometry and deep breathing exercises
Reduces the rate of postoperative pulmonary complications.

f. Premedication
Anxiolysis (oral benzodiazepines can be used)
Aspiration prophylaxis (H2 blockers and prokinetic agents)
Preoperative beta-2 agonists/steroids to be continued.

Pre-anaesthetic evaluation for patients with history of substance abuse
Abused drugs can be classified as:
a) CNS depressants- alcohol, opioids
b) CNS stimulants- cocaine, amphetamines
c) Other psychotropic substances- cannabis (marijuana), hallucinogens (LSD), solvents

Most addicts are polysubstance abusers.
Addictive disease should be considered 'permanent' even in patients having long periods of abstinence.

1. Patient particulars

2. Informed consent

Emphasis on increased rate of perioperative cardiovascular (autonomic instability, arrhythmias, myocardial ischemia, CHF), metabolic (acidosis, acute liver decompensation), pulmonary, neurological (seizures, neuropathies, dementia) and infectious (endocarditis, abcesses, postoperative wound infection) complications; risk of postoperative withdrawal or acute intoxication; altered tolerance to anaesthetic medications and increased length of postoperative ward/ICU stay.

3. History

a) Alcohol or drug abusers might not give a reliable history. Use of screening questionares is useful. Accuracy of these questionares can be further augmented with additional screening laboratory tests.

b) Detailed history of known addiction has to be obtained including type and amount of drug consumed, duration of abuse, routes of administration etc. (eg. it is important to document dosage of opioids consumed to help guide postoperative pain management- optimal use of non-opioid analgesics and regional techniques as opioid analgesics could potentially activate addiction).

c) History of recovery including any periods of abstinence, withdrawal symptoms experienced during abstinence, pharmacotherapy taken for de-addiction (dosage to be documented and verified) has to be taken.

d) Assessment of functional capacity should be done (cardiovascular system is involved in almost all types of substance abuse)

e) Alcohol abuse:

i. Definition of high-risk alcohol consumption:

For males < 65 years age- >5 standard drinks per day (>14 drinks per week)
For all females and males > 65 years age- > 4 standard drinks per day (> 7 drinks per week)

ii. Many screening questionares for alcohol abuse disorders are available, namely CAGE Questionaire, AUDIT-C Questionare, NIAA-2Q/4Q Questionare etc.7,8,9

iii. Negative history pertaining to alcoholic liver disease (weight loss, loss of appetite, jaundice, hematemesis, swelling of feet or abdomen, confusion or drowsiness- indicative of hepatitis, cirrhosis, portal hypertension or end stage liver disease), cardiac dysfunction (dyspnea due to alcoholic cardiomyopathy, arrhythmias) , neurological involvement (seizures, neuropathies, dementia), , thiamine deficiency (muscle weakness, peripheral neuropathy, encephalopathy), any previous episodes of acute pancreatitis or hospital admission needs to be taken.

iv. History regarding any withdrawal symptoms (delirium tremens) during periods of abstinence is important especially for management during postoperative period.

f) Opioid abuse:

History related to autonomic instability (esp. increased tendency for hypotension), easy bruisability (coagulopathy), concomitant liver disease, repeated infections (due to malnutrition and poor immunity) should be taken.

g) Cocaine, amphetamine abuse:

History related to cardiac (palpitations, chest pain, dyspnea- indicative of hypertension, tachycardia, myocardial ischemia, arrythmias, cardiomyopathy), neurological (stroke) and neuropsychiatric involvement (anxiety, paranoia) to be taken.

h) Cannabis abuse:

Associated with autonomic instability, myocardial depression, tachycardia and pulmonary compromise. All these to be kept in mind while taking relevant history.

i) Hallucinogens (LSD) abuse:

History pertaining to autonomic dysregulation, cardiomyopathy, myocardial ischemia and neuropsychiatric symptoms (paranoia) to be taken.

j) Solvents abuse:

Can be associated with cardiac arrythmias, pulmonary edema, diffuse cortical atrophy, cerebral edema and hepatic failure. Relevant history to be taken accordingly.

4. Physical examination

As discussed earlier, alcohol or drug abusers might not give a reliable history. Thus, a careful physical examination is warranted.

a) General physical examination

i. Patients with acute intoxication might be in altered sensorium and disoriented in time, place and person. Recent alcohol consumption can be detected by smell.
ii. Built and nutrition: malnutrition and dehydration commonly seen
iii. Pallor: anemia due to malnutrition, macrocytic anemia seen in chronic alcoholism
iv. Peripheral edema- could be a sign of congestive heart failure (alcohol or drug abuse), chronic liver

disease or thiamine deficiency (alcohol abuse)
v. Jugular venous pressure- raised in CHF
vi. Signs of chronic liver disease- spider nevi, icterus, pedal edema, ascites, altered sensorium (chronic alcohol abuse can be associated with hepatitis, cirrhosis, portal hypertension, end-stage liver disease)
vii. Signs of thiamine deficiency- sensory neuropathy, muscle atrophy, pulmonary edema, encephalopathy (seen in chronic alcoholics)
viii. In intravenous drug abusers it is important to examine venous access sites for signs of abcesses and infections. Also, peripheral venous access might be difficult due to presence of thrombosed veins.

b) Vital signs

i. Hypertension and tachycardia commonly seen in most types of substance abuse especially with cocaine and amphetamine.
ii. Arrythmias may be encountered in chronic alcohol, cocaine, amphetamine and solvents abuse.
iii. Hypotension and decreased respiratory rate seen in patients with acute opioid use.
iv. Hyperpyrexia can be a sign of acute alcohol withdrawal (delirium tremens).

c) Airway examination

d) Systemic examination

i. Cardiovascular system:
In cocaine and alcohol abusers, thorough cardiovascular examination needs to be done for signs of heart failure and arrythmias (cardiomyopathy common in chronic cases).
In intravenous drug abusers, careful auscultation of murmurs should be done to rule out bacterial endocarditis.

ii. Respiratory system:
Lung function can be affected in cases of long-term cannabis inhalation (COPD changes similar to tobacco smoking).

iii. Gastrointestinal system:
In long-term alcohol abusers, physical findings of chronic liver disease need to be looked for.

iv. Neurological system:
Assessment of higher mental functions- dementia, encephalopathy seen in chronic alcoholism; diffuse cortical atrophy occurs in solvents abuse
Pupils- pinpoint pupils seen in acute opioid use; pupils are dilated in cases of hallucinogens abuse (due to sympathetic stimulation)
Sensory and motor peripheral neuropathy seen in alcohol abuse.

e) Any other significant physical examination finding

5. Laboratory investigations
Patients with history of active alcohol or substance abuse to be considered ASA Physical Status Class III at the least.3

As mentioned previously, preoperative investigations to be ordered keeping in mind both patients' ASA Physical Status Class and the type of surgery being planned (NICE Guidelines)4

i. Complete blood count:

Hemoglobin- patients can have anemia (due to malnutrition, macrocytic anemia seen in alcoholics)
TLC/DLC- can be raised in presence of any active infection (lowered immunity) Platelet count

ESR- may be raised due to infection, anemia

ii. Blood sugar:
Hyperglycemia found in patients having pancreatitis due to chronic alcohol abuse
iii. Kidney function tests: Blood urea, serum creatinine
iv. Serum electrolytes:
Hypomagnesemia, hypophosphatemia seen in alcoholics due to poor dietary intake and increased urinary and fecal losses. Hyperkalemia (may be associated with metabolic acidosis in long-term alcohol abuse)
v. Liver function tests: Serum bilirubin (total, direct, indirect), SGOT, SGPT, ALP, serum proteins (total, albumin, globulin), Coagulation profile (PT, PTT, INR) Deranged in alcoholic liver disease. Intravenous drug abusers can be seropositive for hepatitis B or C and hence have deranged LFTs.
vi. Urine examination: Routine, Microscopy, Pregnancy- as indicated
vii. Blood group, Viral markers (HIV, hepatitis B, C esp. in intravenous drug abusers)
viii. X-Ray Chest:

Long-term cannabis smoke inhalation can lead to COPD-like changes.
To look for any evidence of lower respiratory tract infection (lowered immunity predisposes to infections). Patients in congestive heart failure can have pleural effusion, cardiomegaly, Kerly B lines etc.

ix. 12-lead ECG:

To look for arrythmias, left ventricular hypertrophy (due to long-standing hypertension), changes suggestive of CHF.
ST abnormalities, QTc prolongation, tall R or S waves seen in opioid addicts
ST abnormalities associated with cannabis abuse.

x. 2D-Echocardiography:
Indicated in patients with arrythmias or clinical features of heart failure (cardiomyopathy commonly seen in long-term alcohol or substance abuse and needs to be ruled out)
xi. Arterial Blood Gas analysis:
Metabolic acidosis seen in alcohol and solvents abuse.
xii. Additional screening laboratory tests like gamma gluteryl transferase and carbohydrate-deficient transferrin can be done in patients with history of chronic alcohol abuse.

6. Preoperative orders

i. Nil per orally orders
ii. Written informed consent (as discussed earlier)
iii. Orders regarding arranging of any blood products (if required)
iv. Patients should be drug-free well before any elective surgical procedure (preoperative alcohol or drug cessation can help prevent postoperative complications).
v. Patients in recovery phase may have heightened anxiety (related to relapse into addiction, inadequate pain management etc.). These patients need to be reassured that anxiety and pain will be adequately treated.
vi. Patients need to be referred to addiction specialists in the preoperative period for prescription of

medications to prevent withdrawal in perioperative period (eg. benzodiazepines are useful in preventing and treating alcohol withdrawal symptoms).
Perioperative considerations regarding medications used to manage withdrawal:
Methadone (prescribed to opioid abusers) maintainence dose should be continued perioperatively.
In alcohol abusers, disulphiram should be discontinued 10 days prior to surgery. If continued, patient can have flushing, nausea and tachycardia in response to even small amounts of alcohol used in skin preparations or medications.
Naltrexone (for opioid abusers) should be discontinued 3 days preoperatively (alters response to opioid analgesics and makes postoperative pain management very difficult).

vii. Preoperative optimization of the patient- anemia, infection, acidosis, electrolyte imbalance, COPD, congestive heart failure etc. need to be treated before taking up the patient for any elective procedure.

vi) Premedication
Medications to be continued / discontinued as per instructions of addiction specialists (as discussed above) Aspiration prophylaxis can be given.

References

1. Celli BR, Cote CG, Marin JM, et al. The body-mass index, airflow obstruction, dyspnea, and exercise capacity index in chronic obstructive pulmonary disease. N Engl J Med 2004; 350 (10):1005-12.
2. Ara A Vaporciyan , Kelly W Merriman, Ferrah Ece et al. Incidence of major pulmonary morbidity after pneumonectomy: association with timing of smoking cessation. Ann Thorac Surg 2002 Feb; 73(2):420-5.
3. Abouleish AE, Leib ML, Cohen NH. ASA provides examples to each ASA physical status class. ASA Monitor 2015; 79:38-9.
4. National Institute for Clinical Excellence. Preoperative testing: the use of routine preoperative tests for elective surgery. London: National Institute for Clinical Excellence (NICE). England; 2003. p. 30.
5. Tisi GM. Preoperative evaluation of pulmonary function. Validity, indications, and benefits. Am Rev Respir Dis 1979 Feb;119(2):293-310.
6. Preoperative pulmonary function testing. American College of Physicians. Ann Intern Med 1990 May 15;112(10):793-4.
7. Ewing JA. Detecting alcoholism. The CAGE questionnaire. JAMA 1984; 252(14):1905-7.
8. Bush K, Kivlahan DR, McDonell MB et al. The AUDIT alcohol consumption questions: an effective brief screening test for problem drinking. Arch Intern Med 1998; 158(16):1789-95.
9. Agabio R, Gessa GL, Montisci A et al. Use of screening suggested by the National Institute on Alcohol Abuse and Alcoholism and of a newly derived tool for the detection of unhealthy alcohol drinkers among surgical patients. J Stud Alcohol Drugs 2012; 73(1):29-37.

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Anesthetist- A surgeon's perspective

The person on the other side of the fence ..

The guy looking into his phone
Almost. no. Most of the time
Or Maybe learning something
From the March of Dimes

The guy you forget once it all begins
That guy is barely there in sight
That dude you leave without thanking
Usually veiled and disguised

The one who quietly went and
resuscitated d baby who didn't cry
Yes they keep doing such things
Almost like a routine on a sly

The ones who push the "Meph"
Without raising an insane alarm
The ones who watch o'er er shoulder
Often, yet they mean no harm

Their job looks more mundane
Ours often more adventurous
Yes we often own the spotlight
For being all "chivalrous"

We are the Demi-Gods
Who proverbially save lives
Cut open and stitch
There our skill lies

But the patient won't lay there
Until he or she is anesthetised
She won't see another day
Without that guy by our side ...

Without that guy ...by our side.

Credits:
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COMMUNICATION FOR ANESTHESIOLOGISTS

Dr Arun K Mehra

PART X : Role of Communication Technology

In today's world, no discussion on communication can be complete without considering the role of (rapidly evolving) technology. This includes such diverse areas as the social media platforms, tele-health services and Hospital Information Systems (which is basically Management Information Systems applied to the healthcare scenario). While technology has improved efficiency and effectiveness in all aspects of life, including healthcare, it has thrown up new challenges, too.

There are several aspects to discuss here. First let's come to the social media. We are all aware of the omnipresent "Dr Google" and the all-encompassing "Whatsapp University". To put it briefly, while they help patients to learn more, and also serve as a ready reference for doctors, they seem to have created a new set of problems of their own. (This is, of course, true for any new technology or any new invention.) Patients misinterpret what they read depending on what they want to believe, and thus superimpose their own biases. This leads not only to wrong perceptions and prejudices, but can even lead to bitterness and hostility in some cases. Be careful, patients may cross question you and try to "trap" you with what the internet says. (In a similar way, in the ICU they address the same question to different doctors, and then say "such-and-such doctor says something else": that's why it's vital for only one doctor to speak to them all along. This "trapping" is also done by consulting other doctors from outside.) Hence, the need to be careful. Digital sources especially, like the internet, and even family Whatsapp groups, can lead to a lot of incomplete information, misinformation and confusion. The net is loaded with enormous volumes of information, some correct, some dubious, some still experimental, and no one can possibly know or remember all of it, which the patient may try to exploit. Another problem with articles on the net is that these often go down to the latest, most obscure study, with peripheral, irrelevant details, which are neither proven nor accepted, nor has a meta-analysis been done. Quite often the type or size of the study, on which the article is based, is not clear. But patients take these as gospel truth. Unfortunately, some of them place greater faith in these than in doctors (here, even television, another communication medium made possible by technology, has played a similar role, with people who enjoy a "celebrity" status, like film actors, spreading misinformation). So, be frank with patients about internet derived information they may confront you with, and explain that such information is not to be taken as the ultimate truth, and also that each patient is different, and their responses to treatment are different. Telling all this honestly is good communication by the doctor, and also respects the patient's right to know.

Next, tele-medicine has its own set of issues. Avoid telephonic consultations. Patients often record what you say. Its validity in a Court could be a matter of debate, but for your own security play safe. While telephonic consultation has been made legal since the time of the pandemic, and guidelines have been laid down, it's still best avoided, and should be left for special situations like disasters, or for remote, inaccessible areas. Besides, a number of companies have sprung up offering online consultation. These exploit the doctors in several ways. Communication, though facilitated by modern gadgets, is correctly done by personal interaction, if possible. And no medical consultation is complete without examining the patient. Thus, despite the ease, there are lots of reasons to avoid such modes of communication. Tele-medicine has tremendous utility in Radiology, Pathology and other diagnostic branches. But that has very little relevance to Anesthesiology.

NEVER do a PAC telephonically. See and examine the patient.

Yes, you can consult other doctors on the phone (both for the ICU and for the OT), as that is strictly professional discussion. But here too watch out for breach of the patient's privacy, especially if your colleague is not concerned with the patient's treatment, and you are just asking an opinion. Do not say anything that may inadvertently reveal the patient's identity, as privacy and confidentiality are paramount. Here, it's worth adding that loose talk about patients in the OT is dangerous, as we are often not sure of the patient's level of awareness, even under GA. Nor should it take place in cafeterias or rounds or corridors.

Similar to the telephone, another particular utilization of communication technology which has become very common in Anesthesiology is discussing cases and seeking colleagues' advice on media platforms like Whatsapp. There is certainly nothing wrong in seeking help (in fact, Anesthesiologists are taught to keep calm and to seek help), and it has often worked wonders. But, besides confidentiality, there is another word of caution, too, in both telephone conversations and social media texts: though it's just like seeking the help of a colleague who is present in your own OT, there is one very important difference: while he or she will of course share his or her own experience in order to try to help you, but by his not being present in the OT, there is no sharing of responsibility. So, ultimately you are solely responsible for your patient. Besides, there are at least two disadvantages, also, of telephone or social media discussion. First, that colleague is not directly observing the patient, or the responses to your actions. Second, he is not present to physically help you in the problem you have. Still, despite all these limitations, it's still quite a useful exercise, especially when you are alone in a desperate situation, and often proves very beneficial. Just remember that, besides not sharing the identity of the patient, it's equally vital to never lose sight of the fact that there is no substitute for what standard textbooks write (which in turn ensures legal safety too). So this action of digital or electronic communication is reserved for only when you do not have access to a book, or have no time to consult it.

Hospital Information Systems are becoming common in the digitalized age. Basically any Management Information System is a tool for both horizontal and vertical communication within an organization. Though this need not be necessarily computerized, it mostly is so now. It not only helps in storage and processing of information, but also in its spread, thus becoming a useful tool of communication. All this makes it valuable in decision making. Two of the most common uses in the OT are first, keeping records and second, communicating orders for patient care. For this reason it has to be password protected by all users, whether the doctor or the nurse or the administration. It has other uses like inventory management and communicating with the management for fresh supplies.

These are just some of the common uses of information and communication technology relevant to Anesthesiology. There are others. The reader is encouraged to search for more.

The benefits of technology far outweigh the problems that arise. But these same problems still have to be dealt with. So, what can you do to minimize them?

Always bear in mind that there are certain important, practical things to consider in dealing with the social media or the internet. Remember its risks and use common sense.

First, do not fall into the trap of routine telephonic consultations or discussions with patients. Do not give your number to patients. And if you have to speak, keep the conversation to a minimum, with no commitments or guarantees (the same way as no guarantees are to be given in a personal interview). Explain that without an examination, your consultation is incomplete, and it is better for the patient to meet you. In fact, I have a surgeon friend who refuses telephonic consultations, and if pressed, prescribes symptomatic treatment and very clearly says that he is not giving treatment and hence cannot take responsibility, and the patient should immediately come to him, or else go to a hospital. Also, record such conversations yourself. The patient might be doing so.

Next, stay away from the sites that that offer telephonic consultation. They have no legal liability, as they are only platforms of facilitation.

Coming specifically to Anesthesiology, these telephonic discussions are genuinely of immense value in Critical Care, and may even be life-saving. But remember that this is professional communication, between colleagues, different from patient communication. It should be through a secure line.

Returning to the social media platforms, do not post pictures of any patient or procedure without a written consent. This is both legally and ethically wrong. And, even with consent, be sure there is no way that the patient can be identified on the platform. (Of course, those involved in that patient's care will be able to guess, but they are part of the team).

In a Hospital Information System, use it judiciously. Make sure that it is secured, with no possibility of unauthorized access. You cannot be one hundred percent safe from hackers, but can still take all precautions. Also, when communicating with agencies like the insurance companies, remember that the patient's information is being given to a third party. It has a potential for misuse. This is, of course, for the hospital management to work upon, and there are certain legalities about communicating with these organizations and about sharing of information with them. These should be checked from the regulatory authorities.

Before closing, one point needs emphasis: after going through this discussion, the reader may feel a tinge of fear. But crucially, this is not meant to create panic. Remember, communication technology (like all other medical technology) is your friend, as long as it is used discreetly, and as long as it does not fall into the wrong hands. What is needed is sound judgment in how to employ this technology.

Lastly, also never forget that there is no substitute for a lifetime of experience, also that medical sciences cannot be learned from the internet in fifteen minutes. If the need arises, politely remind the patient of this.

YOGASANA

Setu Bandha Sarvangasana

Setu bandha Sarvangasana or bridge pose is a multifaceted asana. It can be active or passive.

Asana type- back bend which targets the core muscle groups and allows oneself various options and modifications of back bend that works for them. It uses all four limbs.

HOW TO DO IT

- Lie on the back with the knees bent and feet on the mat, hip distance apart. Keep the feet as close to glutes as possible.
- Bring the arms alongside the body, palms down.
- With inhalation, press down firmly through the feet and lift the hips.
- Raise your whole body off ground with feet, head and shoulders resting on the ground.
- Stay in this pose for 30-60 seconds.
- Continue deep breathing.
- With exhalation, release the hands and slowly lower the whole body to the mat.
- While doing this asana, maintain the natural curve of the neck. Don't press the back of neck to the mat.

PREPARATORY POSE

Bhujangasana

COUNTER POSE

Balasana

BENEFITS

- It stretches quadriceps, sartorius, rectus abdominis, pectoralis major, deltoids.
- It contracts gluteal muscles and hamstrings, erector spinae and quadratus lumborum.
- It improves posture.
- It counteracts the effects of prolonged sitting and slouching.
- Helps relieve low back ache and ease kyphosis.

CAUTION

- Avoid this asana in neck and shoulder injury.

Dr P N SHIVPRIYA
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ABVIMS AND DR RML HOSPITAL

PET CORNER

Constant Companion

Myself Dr Dushyant, for those who don't know me well, I am absolutely DOWN AND OUT a dog person I can’t even remember HOW long I have been in love with dogs. Currently, I am OWNED by a handsome German shepherd GABBAR who just turned 3 but this is about my two boys who came long before him and helped me in my journey.

I did my undergrad at Maulana Azad Medical College and those who have been lucky like me must be aware of THE love affair between MAMC students and Nescafe doggies

I have been lucky TO HAVE RECEIVED THE LOVE of these two gentle souls: Hoggy(Handsome Doggy), and MISSY (used to make miserable eyes) - FOR ME IT WAS LOVE AT FIRST SIGHT

But one look at him, and I knew he was GABRU and is still known by that name... Well he was a charmer and had a simple mantra "My way or high way". He used to come over for food or some head scratches, staying till he felt like it and just leaving. And the other boy used to go by LANDY/ LANDU/ MOTU. He taught me that love could soften anyone!!

He was young, territorial and kind of scary dog but with a bit of love and lots of Amul dahi, I discovered he was just a sweet little puppy at heart. He was loved and had his own fan club that helped me in taking care of him.

I don't really believe in God but if he does exist, he sent me these two angels. Gabru passed away in 2014 a month before I got DA and Landu right before MD. I believe they held my hands with their paws and guided me - through happiness and sadness... relationships and heartbreaks... laughter and tears.... Success and failures...

Whenever someone asks me what they meant to me - I say to them, they were my CONSTANT COMPANIONS!

Dr. Dushyant
Senior Resident
ABVIMS & Dr. RMLH

INCREDIBLE INDIA

Thaipusam Festival

Thaipusam is a Tamil Hindu festival celebrated on the full moon of the Tamil month of Thai, usually coinciding with pushya star known as Pusam in Tamil. The festival commemorates the legend of goddess Parvati offering her son Murugan a vel so he could vanquish the asura Surapadman and his brothers.

Thaipusam is mainly observed in countries where there is a significant presence of Tamil community such as India, Malaysia and Mauritius.

In palani, Arulmigu Dhandayuthapaniswamy temple, 10 day festival (Brahmotsaram) is held during Thai posam.

The kavadi Attam dance is a ceremonial act of devotional sacrifice through dance, food and offerings. It is often performed by devotees during the festival of Thaipusam in owner of Murugan. Devotees prepare for the festival by spiritual cleansing themselves through prayer and fasting for 48 days.

The Thaipusam is the celebration of the atmost devotion to the lord Murugan.

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Gardener's Guide

Ways To Keep Your Indoor Plants Hydrated While You Are Way

Reuse your old plastic bottles (Pic1)

Cut the bottle into half , the upper part of bottle with cap should be used as a planter. Create a hole in the cap & attach a string hanging out from the cap, this will be placed on the cut bottom part, which could be filled with water. The plant self-irrigates using the string.

String-a-ling system (Pic 2)

Place one end of the string inside the plant and the other end into a pot or a large tub of water. If it's a particularly large plant you could always add 2 pieces of string per plant. The water source needs to be higher than the plants so the water drips down. Also, check that your string will absorb water. If you're not sure, do a test run a few days beforehand.

Pic 1

Pic 2

Self-watering probes are placed on a used bottle, and is a simple and effective way to water plants during a holiday. Using the control valve one can control the dripping speed of water. Drill some holes in the bottom of the bottle or cut the tail of the bottle to keep the air flowing

Pic 3

Pic 4

Pic 5

Automatic watering system (Pic 4)

The automatic watering system is pretty easy to set up. It has simple and understandable controls. You can water around fifteen plants in one go. With this timer, you can choose the necessary intervals between which you wish to water your plants.

Saucer/ Tray (Pic 5)

A saucer or tray is placed underneath the potted plant and filled with water. As the soil dries, the plant will absorb the water through the drainage holes in the bottom of the pot.

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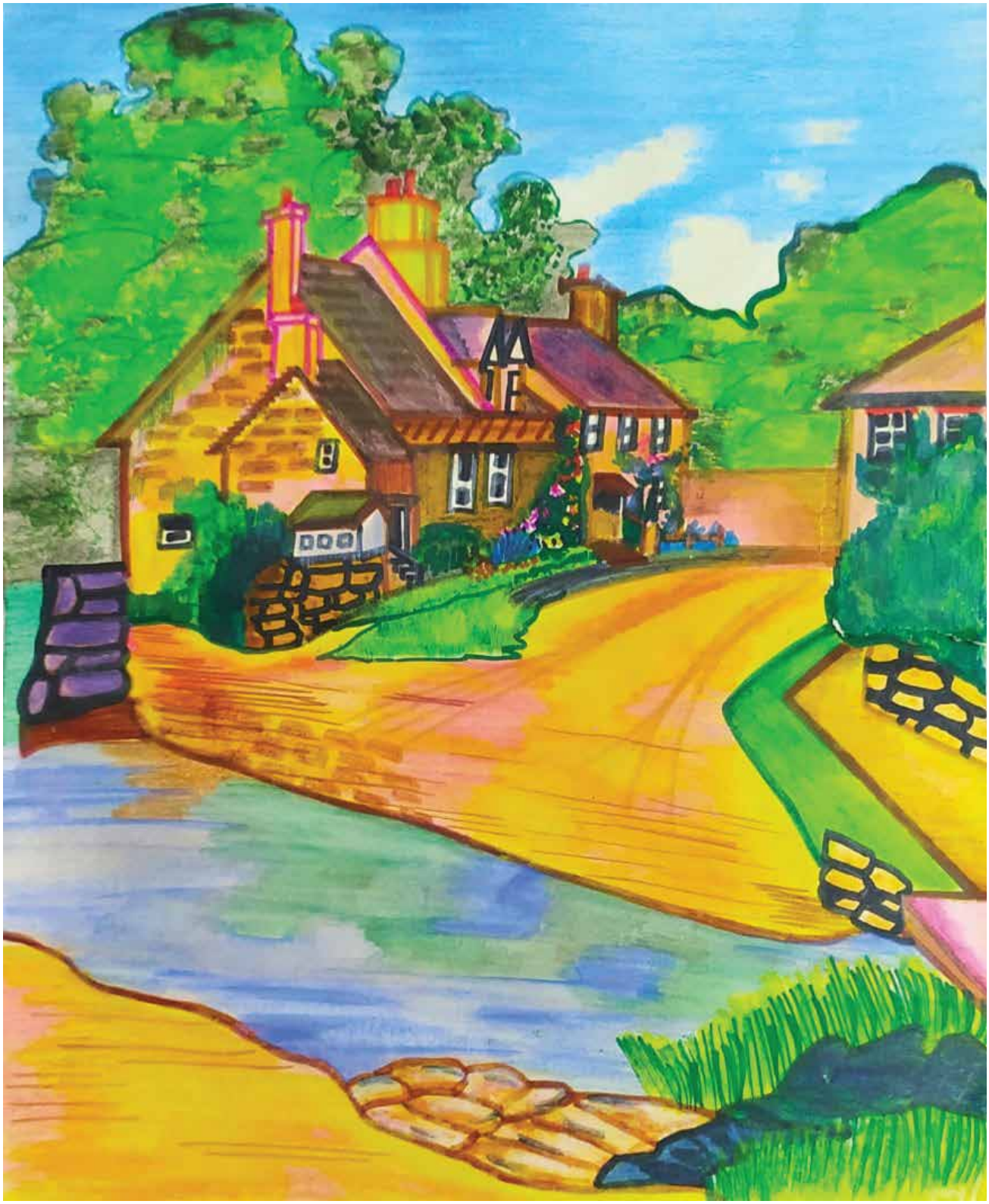
OFFBEAT (Painting)



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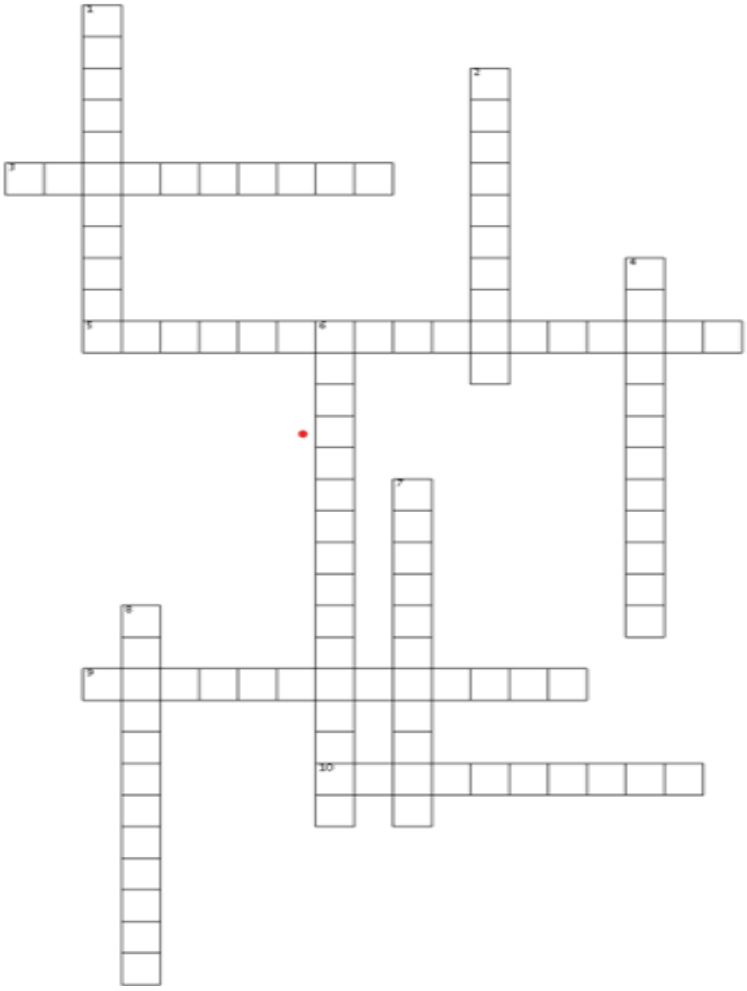
CROSSWORD



ACROSS

3. Muscle relaxant causing pain on injection.
5. Anaesthetic drug injected for paravertebral block is least likely to diffuse to which surrounding space
9. Which bacteria is the commonest cause of acute exacerbation of COPD
10. Choice of anticoagulant in a pregnant patient with previous history of heparin induced thrombocytopenia

DOWN

1. In which lung condition increasing the oxygen concentration will not increase the oxygen saturation
2. Opioid for OPD analgesia
4. Specific reversal agent to dabigatran
6. Pulsus paradoxus is most commonly found physical sign in
7. Prolonged infusions of atracurium leads to development of epileptic fits. Probable cause is accumulation of
8. Anaesthetic agent not metabolised by body

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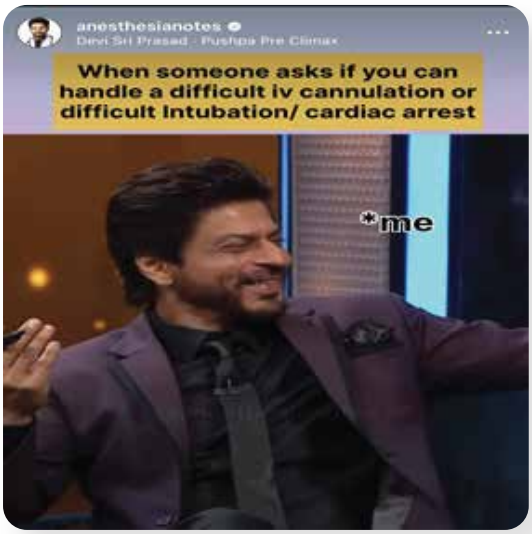
The correct answers to be sent to editorisadel@gmail.com by 25 -09- 2023

Answers to Last Edition Brain Teaser Across: 4- AUSTIN FLINT 5- COBALT 8- ARMITAGE 10. SUGAMMADEX

DOWN: 1. SUCCINYLCHOLINE 2. TENSILON 3. COPUR 6. DIBUCAINE 7. FEMORAL 9. CAPRINI

HUMOR STOP



Compiled from Instagram by
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South Zone

Designation	Name	Institution	Email Address	Mobile No.	ISA membership
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Professor & HOD	Dr. Kharat Mohd. Butt	Hamdard Institute of Medical Science & Research, New Delhi	khairatm@gmail.com	9622457554	K-2379
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Head of Department	Dr. Mahajan		Dr.hari1958@gmail.com	9811153568	
Head of Department		Medeor Hospital			
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North Zone

Designation	Name	Institution	Email Address	Mobile No.	ISA membership
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Director, Departmant of Anesthesia	Dr. Umesh Krishnarao Deshmukh	Fortis Hospital Shalimar Bagh	drumeshdeshmukh@gmail.com	9810101445	U-0100
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West Zone

Designation	Name	Institution	Email Address	Mobile No.	ISA membership
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Central Zone

Designation	Name	Institution	Email Address	Mobile No.	ISA membership
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Head of Department	Dr. U K Valecha	BLK Superspeciality Hospital		9810001903	

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