

Welcome to ESRA Updates

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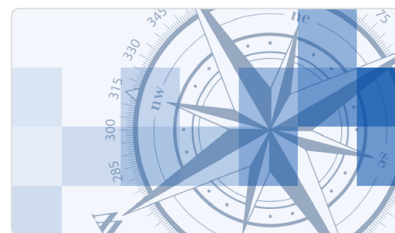
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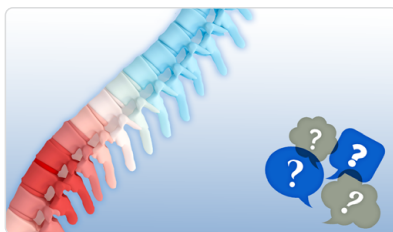
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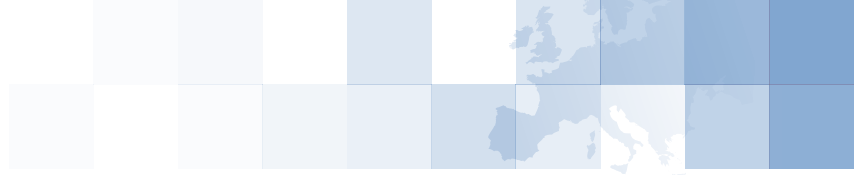
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Editorial



Clara Lobo (Editor of ESRA Updates; Cleveland Clinic Abu Dhabi, UAE) @claralexlobo



“The only positive point of 2020 was the solidarity, commitment, altruism, sacrifice and hard work of doctors, in general, and anesthesiologists, in particular.”

“If you can't fly then run, if you can't run then walk, if you can't walk then crawl, but whatever you do you have to keep moving forward.” – Martin Luther King Jr.

The editorial board of ESRA Updates wish to welcome 2021 and say goodbye to 2020... for obvious reasons! The only positive point of 2020 was the solidarity, commitment, altruism, sacrifice and hard work of doctors, in general, and anesthesiologists, in particular. The best tribute we can do to those left behind during this battle is to do our part with honesty, dedication in building a better world, using everything we've learned so far, with our eyes in the future. Tireless and fearless!

As much as we miss face-to-face meetings, we must recognize that COVID-19 did introduce a new form of education and teaching by launching the wide-spread use of webinars. These webinars give the opportunity to reach a lot of people in short high-standard online lectures and discussions in their own living rooms. [ESRA webinars](#) are a reflection of it, they are becoming popular with an increase attendance every time.

Some key points we wish to highlight in this January 2021 ESRA Updates issue:

In 2020, it wasn't just SARS-CoV-2 that shook the world... dealing with so much grief, [massive catastrophe in Beirute, the war in Syria and in Central African Republic](#) are brutal examples of this. But in the midst of darkness there are points of light so bright that they make us believe in a better world and keep a flame of breath within our hearts. ESRA newsletter brings the [tribute to Araz Pourkashianan](#) from his colleagues Irfan Raza, Leo Phylactides and Andrzej Krol, the testimonies of Aline Toukhtarian and Gustavo Carona – both Anesthesiologists who thanks to their human and technical abilities used Regional Anesthesia and POCUS to save lives.

But in all crises, there are also opportunities... is this the case for regional anesthesia in outpatient surgery? Curious? Read Robbie Erskine's article [here](#).

In ESRA we strive to improve the way we present our mission to the community of Anesthesiologists. We have created a new section on our website – [the Guidelines page](#) – where you can find the different guidelines or recommendations made by ESRA, ESRA/Prospect, National Societies and also the Covid 19 Guidelines. To visit click [here](#).

During these difficult times, it can be difficult to keep track on interesting papers in recent publications. The editors of ESRA Updates asked Dr. Sari Casaer to identify her top 3 articles. See her choice [here](#).

You can test your knowledge in Regional Anesthesia and Pain Therapy answering questions on [spinal anatomy, EDRA & EDPM](#). Good luck!

And last but not least, in this issue of ESRA Updates, we want to renew a spirit of hope and recover the good vibes and great sense of humor that characterize anesthesiologists. And for that we asked the question: what's the best way to say goodbye to 2020? We challenged Anesthesiologists & Pain Doctors & Intensivists to send us their perfect farewell to 2020, appealing to their imagination and creativity.

It is with great joy and satisfaction that we announce the great winners of the competition of #ESRASayGoodbye2020!!

You can find the winners [here](#).

My transformation through COVID-19



Steve Coppens (Co-editor of ESRA Updates, UZ Leuven, Belgium) @Steve_Coppens



Aline Toukhtarian (Regional Anesthesia Fellow at UZ Leuven, Belgium)



“ Doing peripheral nerve blocks for patients with all sorts of limb injuries allowed us to do some minor surgeries in the emergency department and free up space in the operating theater for more major cases. ”

1. Can you tell a bit about yourself, your background and studies?

I was born & raised in a beautiful city called Zahle in the Bekaa valley in Lebanon. When I finished high school I had to move to the Lebanese capital, Beirut to follow my university studies at the American University of Beirut (AUB), one of the leading universities in the middle east. At AUB, I spent 11 amazing years where I received a bachelor's degree in Biology followed by a doctor's degree in medicine. After 4 years of residency, I graduated as an anesthesiologist.



«At AUB, I spent 11 amazing years where I received a bachelor's degree in Biology followed by a doctor's degree in medicine.»

2. Can you describe how you came to UZ Leuven for a fellowship and what your motivation was?

During my residency, I have always felt that we need extra training in regional anesthesia. So, I was in a constant search of programs that offer a good training in this field. UZ Leuven fulfilled these criteria. I was startled by the large number of regional anesthesia techniques performed yearly there. I emailed Dr. Steve Coppens, the fellowship director and head of clinic of regional anesthesia and acute pain therapy for the possibility of following a 1year fellowship in regional anesthesia. I was delighted when he replied to my email and offered me a skype interview along with a meeting with the Chairperson of the Anesthesia Department, Prof. Marc Van de Velde. They were both very welcoming & friendly. They guided me through a very lengthy accreditation process with the Belgian Ministry of Health to get a temporary license to follow training in Belgium. Though the path was full of obstacles, Dr. Coppens & Prof. Van de Velde supported me in every single step of the way. In retrospect, all the wait & effort was absolutely worth it!!!



«I had a great experience at UZ Leuven. It was way more than I expected.»

3. Can you give a brief description of your time at UZ Leuven. Amount of blocks, teaching and the general experience. Also how is living in Leuven, general ambiance, did you make friends, how was social life and food?

I had a great experience at UZ Leuven. It was way more than I expected. I arrived anticipating to learn basic regional anesthesia techniques and left with an expert level in performing peripheral nerve blocks and thoracic epidurals. By the time I finished my training, I had performed more than 1800 loco-regional blocks. The staff anesthesiologists put a lot of weight on teaching. The nurses were absolutely excellent & very professional. I could say that I left a piece of my heart in UZ Leuven. As for Leuven, it is a university city with a student friendly atmosphere with biking trails all

over the city. You could find a variety of international restaurants & cuisines. It is very safe. The Oude Markt is a hub of pubs & meeting place for students throughout the days of the week. Plus, the central location of Belgium is perfect for you to explore Europe on weekends.

4. Can you describe what happened in Beirut and where you were at the time of explosion?

On Tuesday the 4th of August, I was having a normal afternoon at my husband's family's workplace in Bourj Hammoud. We heard the sounds of aircrafts circling Beirut. I remember my husband & I going towards the window to check out what was happening. Around 40 seconds later, we heard the sound of an explosion. The electricity went out, we ran away from the windows towards the center of the building and a second explosion happened. The second explosion was wayyy stronger with a blast after-shock. The windows shattered, the aluminum borders of the windows flew inside. The whole building shook real hard. At that point, we thought something happened really close to the building. It was the strongest sound we have ever heard in our lives.

5. Hopefully none of your loved ones or friends were wounded, how did you check or got news?

Moments of sheer panic followed the explosion, as we were checking on all our loved ones. The lines were jammed. Thankfully, none of our close friends and family members were seriously injured. Looking out the window, we could see smoke in the area of the port. Nobody knew what really happened. Different scenarios were out on the news. Regardless of what could have caused the explosion, one sure thing is that our government is so corrupt & negligent that officials previously knew about tons of combustible material stored in the heart of Beirut at the Port and they did nothing about it.

6. How did you react, were you on call? Did they call you to the hospital?

Just after the explosion, I was still unaware of the severity of the hit. We could see the damage around us but we did not realize the extent of injuries & fatalities that this explosion had created in many areas similar to ours. Many major hospitals at the center of Beirut were destroyed and paralyzed moments after the blast with interruption of power supply. Four nurses passed away while on duty. Many doctors were injured. Some patients on ventilators in intensive care units also passed away due to power interruption. Ambulances could not reach the areas with the most damage. People were carrying the injured on foot to the hospitals only to find that the hospitals themselves were overloaded and semi-functional. Doctors, residents and nurses were treating patients in parking lots outside the hospital. Ambulances soon started carrying the injured to hospitals outside the circle most affected. One of those hospitals was the hospital I am currently working in, the Middle East Institute of Health (12 km away from blast location). I was not on call. I got a notification from the administration that we have received an enormous number of casualties at the emergency room. Code D was activated in most hospitals even as far as 40 km away from the blast. All the staff whether on call or not came back to the hospital to help.

Beirut explosion: CCTV captures moment blast struck hospital: <https://youtu.be/4hmj6BegDUU>

7. How was the initial casualty uptake organized?

Throughout history, Lebanese hospitals have always had to deal with casualties from some sort of disaster; be it the Lebanese civil war from 1975-1991 or the June 2006 Israel-Hezbollah war or series of political assassinations by bomb in the early 2000s. As Lebanese medical students, we are trained to deal with mass casualties in the emergency department. However, this disaster was like no other. None of this experience fully prepared us for this scene. The emergency rooms were full of casualties way higher than their capacity. Triage was key. There was an attempt to separate the emergency department into four zones of acuity. If you could walk & talk, and had no injuries to the torso, head or neck, you were assessed carefully and rapidly sent to the low acuity zone. The red zone was where the most critical patients who needed immediate life-saving treatment were sent. However, the load of patients arriving who needed urgent care was way above our capacity. To put things in perspective, on the night of the blast, we received over 300 patients at the emergency department. Compared to the scale of UZ Leuven, the Middle East Institute of Health is a small hospital with 4 functional operating rooms. You could imagine how chaotic the situation was amidst the Covid-19 pandemic. The scene of patients waiting in line compressing their own wounds and applying clothing as tourniquets to stop the bleeding resembled a scene from an apocalyptic movie with one small difference that it was pure reality. I intubated an unconscious patient while his poor brother assisted me. We had to urgently bring a man down to the operating theater for control of bleed while his sister had arrested in the cubicle next to him and the team was performing CPR. And countless other stories...

8. You used regional anesthesia, can you describe us what you did, how many patients etc...

Regional anesthesia came in pretty handy in the management of many casualties. Specially that most of these patients arrived shaken and not in their right state of mind to give us a proper history about their medical background. A major chunk of patients had traumatic fractures secondary to the blast wave or they suffered from tendon lacerations secondary to the shattered glass or needed digital replantations... Doing peripheral nerve blocks for patients with all sorts of limb injuries allowed us to do some minor surgeries in the emergency department and free up space in the operating theater for more major cases. We worked overnight in the operating theater and emergency department. We started with the most urgent cases and kept the closed wounds and the less pressing operations for the next days to follow. I did around 60 blocks in 3 days. That is considered a huge number compared to our regular load. For example, during the whole month before the blast I had performed around 15 blocks.

9. Do you think regional anesthesia played a big part on the outcome of these patients? Did you do follow-up?

The use of regional anesthetic techniques as the sole source of surgical anesthesia proved to be the safer option for several reasons. First, all casualties were major trauma victims that are considered "full stomach". Second, many of these victims had multiple comorbidities that ideally needed to be optimized pre-operatively had they not arrived in the emergency setting. Also, some patients suffered from head trauma and required monitoring of their neurologic status for at least 48 hours. Keeping them awake during surgery was the safest option. Let alone patients who had lung contusions, hemothorax, who were placed on neck collars for possible cervical spine injury or elderly patients at heightened risk of developing delirium in the trauma setting.

In addition, I believe that regional anesthesia was such a plus in the outcome of a specific category of patients with crush injuries who were at higher risk of developing chronic pain. Those patients benefited the most from a follow-up assessment where I did a second single shot block the next day when the initial block wore off. Of course, these patients would have been perfect candidates for continuous catheter techniques. That is a limitation that I had to deal with since we do not have needles or pumps for continuous catheter placement.

To sum up, regional anesthesia was a safer alternative to general anesthesia, conferred excellent site-specific pain relief that is free from major side effects, post-operatively reduced opioid requirements and lowered the risk of developing chronic pain.

10. Can you explain us your set-up, Ultrasound, place where you perform blocks, your needles and all material in pictures?

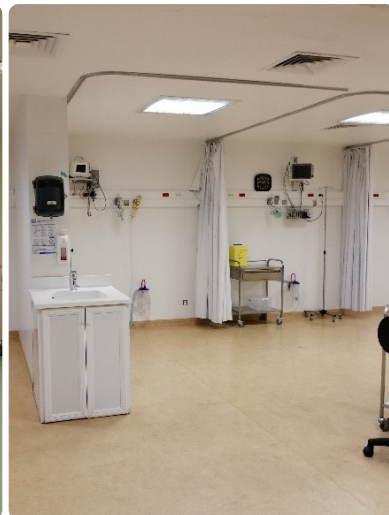
We have a very modest setup compared to UZ Leuven. Our anesthesia department does not own an ultrasound machine. I borrow an ultrasound from the radiology department (Siemens Acuson X300) whenever I want to do any blocks (see pic 1). We have a nerve stimulator and PaJunk single shot needles. We do not have continuous catheter needles. We do not have a space allocated specifically to perform nerve blocks. I either do the block in the operating theater (see pic 2) or whenever we have enough nurses to monitor the patient, I ask for the patient slightly earlier and I do the block in the recovery room (see pic 3) to save some time.



Pic. 1



Pic. 2



Pic. 3

11. Can you tell us how the situation is now in Beirut and if your regional practice has changed?

The explosion that tore through Beirut was so strong that shockwaves were felt on the island of Cyprus, over 200 kilometers away. It caused at least 200 deaths, 3 reported missing and 6500 injuries. It left an estimated 300,000 people homeless with an estimated property damage of \$10-15 billion US dollars.

Such devastation would be difficult to deal with at the best of times but it hit us in the midst of a severe economic crisis that has only been compounded by the COVID-19 pandemic. The Lebanese currency had lost more than 80% its value in less than a year. The country has gone bankrupt and the national bank has applied restrictions on our personal bank accounts. Simply put, we do not have access to the money in our own bank accounts.

As for my regional practice, I strive to follow the same standard of care that I have learnt in UZ Leuven. I would love to introduce continuous catheters to our daily practice. However, now is not the right time to expand. We have a lot of restrictions. We have a shortage of many drugs. Currently, we are only doing what is absolutely necessary.

12. Can you tell us your plans for the future maybe?

The Beirut explosion left us traumatized. We do not feel safe in our own homes anymore. Though we had previously made our plans to stay in Lebanon. We are now considering moving to a place that offers more stability and peace of mind.



Grietje Leysen, Steve Coppens, Jacky Corpuz & Aline Toukhtarian

It's all about the heart



Gustavo Carona (Hospital São João, Portugal)



“ I have some special reports in my personal logbook of extraordinary cases where ultrasound has made a difference and given me valuable insights to guide clinical care. ”

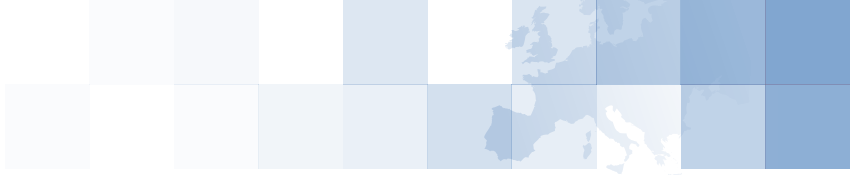
It's all about the heart. I am an anesthesiologist, and my passion is intensive care. I am especially intrigued by haemodynamic modulation. It was easy to fall in love with bedside echocardiography and its potential to support haemodynamic manipulation. I use it whenever I can and have become increasingly confident using it as a diagnostic tool to support clinical decision making. Now I feel that approaching a patient without my ultrasound machine is like making a 'blind assessment'. My assessment of a critically ill patient is not complete without a bedside ultrasound of the heart and lungs!

Another of my passions is humanitarian medicine. For the last twelve years, I have spent several months working in crisis zones for organisations, including Doctors Without Borders, and the Red Cross's International Committee. The clinical environment is always challenging with minimal resources, often only a basic point of care haemoglobin testing device and minimal radiology access (certainly no CTs!). On several occasions, I have had to bag-ventilate a patient for many hours. Over the years, I have managed a lot of trauma. My experience in Yemen was particularly memorable. I saw more trauma in one month than most intensivists see in their lifetime. In the Democratic Republic of the Congo, I helped care for a two-year-old child who had a stray bullet in his abdomen. Incredibly this was the second time this young child had been injured this way, thankfully he survived!

One piece of kit we do have is an ultrasound machine. Why is this piece of gear available in areas with otherwise minimal equipment? War zones are not just about caring for the injured – life goes on, and obstetrics is a big part of medical care in crisis areas. To manage the many obstetric challenges we meet, an ultrasound is vital. You know where I am going with this? Having even a basic ultrasound machine enables us to perform E-FAST (extended Focused Assessment with Sonography for Trauma). Without a doubt, this has had a considerable impact on our ability to save lives. I have lost count of the number of people for whom this imaging tool has made a difference. Our routine for emergencies is security (always a challenging task in such a noisy, chaotic environment), secondly, triage, and third, E-FAST. I can't even imagine what it would have been without this 'game of greys' that allows us to look inside a patient's body. I have lost count of the number of abdomens and thoraces where we have intervened based on ultrasound findings and the resultant lives saved. Equally, the number of occasions the ultrasound has shown us that intervention is not needed to save a life.



Shards on trauma victim (Yemen, Al Mocha is the city)



Bullet in the liver identified in US scan (that corresponds to the story) (Yemen)

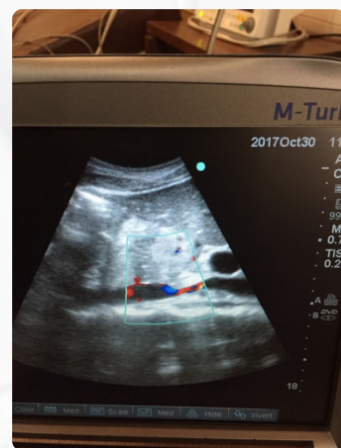
I have some special reports in my personal logbook of extraordinary cases where ultrasound has made a difference and given me valuable insights to guide clinical care. In Yemen, we had a patient with a gunshot wound on the right upper abdomen. Without an ultrasound, he would have required a laparotomy (a potentially hazardous operation in this environment), but using the ultrasound, I could see where the bullet was lodged and that the intra-abdominal bleeding was minimal. We managed him conservatively, with observation and serial ultrasounds. Within a few days, he was discharged. In Mosul, I cared for a patient who had been shot through the stomach. He underwent laparotomy to fix the damage and was initially stable post-op, but then deteriorated and became anuric. Was he bleeding, was he septic? The bedside echo helped me to identify that he had gone into cardiogenic shock. We were able to provide a couple of days of inotropic support until his heart and kidneys came back into action, and he recovered well.

Alongside delivering care in crisis zones, teaching is equally important. Undergraduate and postgraduate education for doctors and nurses also suffers during times of conflict. The lives we save are a ‘reward’ that we selfishly take, but the knowledge that we leave behind is what makes the world, bit by bit, a better place to live. Helping the local team to develop their knowledge and skills is crucial. “Do you see free fluid in the abdomen?”... “Is there lung sliding?”... “Do you see a hemothorax?”... I go over and over the systematic approach of E-FAST, and when there is an opportunity, we take a look at the heart. In Yemen, the only female doctor in our trauma centre became very confident using ultrasound as a diagnostic aid after only a couple of months of bedside training. There is not one single physician anesthesiologist in the Central African Republic, so you can imagine how much you can gain by teaching some good ultrasound skills to young doctors and ensuring that they become good friends with the ultrasound.

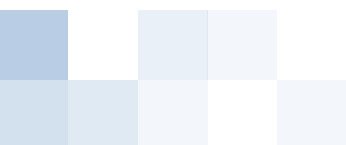


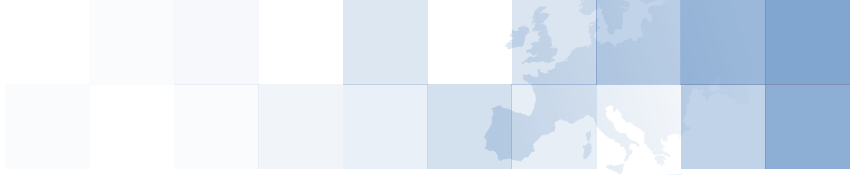
Shards on the Torax in trauma victim in Mosul, Iraq (you can see the challenge of this type of multiple injuries where you don't know which one can be penetrating)

But maybe, my most thought-provoking experience of using ultrasound was in Syria. It is difficult to describe the extent of human suffering that is happening there—frequent bombing from the army and the Islamic State’s suffocating growing pressure. We saw a lot of trauma every day, and I was doing a lot of ultrasounds. One day, one of the young Syrian nurses approached me. She told me that she had a pain in her heart. My Arabic was as good as her English, so I went through her clinical history with the help of a female translator. She told me specifically that she had seen me looking at patient hearts and that her heart was aching. With the translators’ help, and using my very basic machine with an abdominal probe, I did a bedside echo. Everything was completely normal.



Inferior Vena Cava Thrombosis, after perforating trauma (Congo)



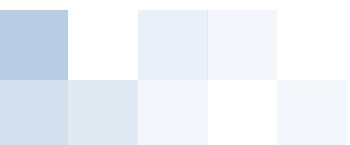


It became clear to me that she was suffering from massive psychological trauma from her experiences due to the war. I scanned her heart and showed her the images, reassuring her that her heart was in a perfect condition. She felt much better, and some of her anxiety and stress faded away after my simple words. She was extremely thankful. I didn't do much, but I guess the ultrasound helped one more person. It's all about the heart.

The author in Mossul, Iraqe



Doctor from the Central African Republic learning US under supervision from the author



Tribute to Araz Pourkashianan



Andrzej Krol (St. George's Hospital, London, UK)



Araz Pourkashianan

6th April 1986 – 23rd November
2020

Araz, beloved husband, father, son, brother and friend died of an intracranial haemorrhage at the age of 34.

He attended Manchester Grammar School before going on to study medicine at the University of Birmingham. He graduated in 2009 and commenced his medical training. He was passionate about anaesthesia and secured a place on the specialist training program at St George's School of Anaesthesia, part of the London Deanery.

Early on in his training Araz discovered that he had a real interest in regional anaesthesia. He secured a regional anaesthesia fellowship at Frimley Park Hospital in Camberley, where he excelled as a regional fellow. He was instrumental in initiating the block room, in establishing pathways for anaesthesia and analgesia for mastectomies and a pathway for the management of delayed complications of peripheral nerve blockade. His skills in regional anaesthesia were quickly recognised by his teachers and peers as well as the surgeons he worked with. He was awarded the European Diploma in Regional Anaesthesia and Acute Pain Management in 2019. Having just secured a consultant post at Frimley Park Hospital, he was due to take up his new post in February 2021.

Apart from his clinical skills, he will be remembered as a softly-spoken and gentle person. His humility did not allow him to fully appreciate just how exceptional he was. "Kind, Respectful, Responsible, Excellent" are the St George's values. For Araz these were natural, effortless. This earned him many admirers and friends wherever he went. Working on the frontline against the first outbreak of Covid-19, he created unique bonds between members of the department during long day and night shifts. Consistent with his character, Araz was on the organ donor register and in one final act of altruism, he ensured, that even as he passed, others would carry on living by the light of the flame lit by his torch.

Araz has gone too soon and left so many unfinished projects and ideas. We have an obligation to carry on and remember him. He will be sorely missed by all his colleagues at Frimley Park, St George's, Croydon University and St Peter's hospitals. He is survived by his wife Lucy and sons Casper 4 and Leo 1. We pass on our deepest condolences to them and the rest of Araz's Family.

Rest in peace.

On behalf of Regional Anaesthesia Community
Irfan Raza, Leo Phylactides and Andrzej Krol

Spinal anaesthesia for ambulatory surgery in the COVID-19 pandemic and beyond



Robbie Erskine (FRCA, Consultant Anaesthetist, Derby UK) @DrRobbieErskine



“The usage and interest in RA and SA have been great opportunities during COVID-19 for patients, staff and anaesthetists alike, presenting us with an alternative to the risks of GA.”

What do we mean by spinal anaesthesia for ambulatory surgery? The term merely describes the targeted use of spinal anaesthesia in such a way as to take full advantage of its many benefits in the day case setting, whilst minimising the side effects associated with more traditional approaches.

In the UK, spinal anaesthesia (SA), and regional anaesthesia (RA) in general, have historically been regarded with some suspicion by the anaesthetic profession. Prior to the 1950s, SA was in widespread use but serious complications in two consecutive patients (Woolley and Roe,¹) at a time when training, governance, new drugs and monitoring in general anaesthesia had all been recently improved led to a decrease in popularity. We are fortunate that mainland Europe and Scandinavia were not thus affected and continued to develop and promote RA and SA, although this has by no means been universal.

Epidural and SA have developed and increased in popularity in the in-patient population specifically in obstetrics and major joint arthroplasty over the last 30 years but traditionally the “quick GA” has been the option for most other procedures; SA was rarely offered as a choice, particularly in the ambulatory setting.

It is often claimed that patients, surgeons and day surgery staff don't like SA for the reasons of timing, slow recovery of function and urinary retention. The other claim that “patients don't like being awake” is possibly our fault as anaesthetists in failing to promote RA as an option over the last 50 years, influencing a number of generations of patients, surgeons and our trainees. Indeed those with a RA interest understand that once patients have tried it the majority will request it in the future. Less paternalism in medicine and surgery along with increased patient education and exposure in the media have all been instrumental in reducing the mystique.

JFK said 'In a crisis, be aware of the danger-but recognise the opportunity'(2). The usage and interest in RA and SA have been great opportunities during COVID-19 for patients, staff and anaesthetists alike, presenting us with an alternative to the risks of GA. Discussion is on-going with respect to the dangers of Aerosol Generating Procedures (AGP) and the relative timings and importance of airway intervention techniques in their production. A particular concern remains with PACU/anaesthesia recovery staff who are possibly more vulnerable than most to the uncooperative, unprotected airway. Patients, probably sensibly, are regarding hospitals as less “hotels for convalescence” and more day units where they have their procedure and leave for the safety and comfort of home.

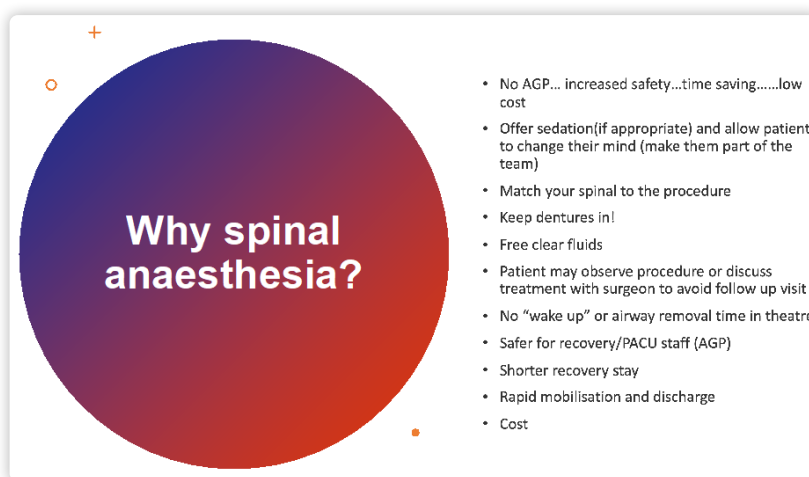


Fig 1 «Once the advantages of shorter acting SA techniques have been appreciated along with increasing experience and familiarity they may well be offered increasingly to patients as a routine option in the post COVID-19 era.»

The recent interest in RA in the wider anaesthetic world raises questions of training and competence which are being addressed by some new initiatives (3) but it is important to employ caution as enthusiasm can sometimes race ahead of ability. It remains that, whatever the anaesthetists competence in RA, SA is very much the RA that all anaesthetists are competent to perform.

Bupivacaine is a reliable and effective agent and has been the drug of choice for SA for 50 years. In hyperbaric form it is licenced for use as Marcain Heavy 0.5% in the UK, however whereas it's isobaric (plain) preparation, although widely used, is not licenced Levobupivacaine is licenced for intrathecal use. The long acting nature of bupivacaine has not enhanced the reputation of SA in the ambulatory setting or indeed for in-patient surgery of under 90 minutes. Lidocaine was used extensively for shorter procedures prior to the 1990s when concerns over transient neurological syndrome caused it to be withdrawn for SA. Newly packaged "old" local anaesthetics Prilocaine and 2-chloroprocaine have been introduced in Europe in the last 10 years and are enjoying increased popularity.

Hyperbaric prilocaine 2% has been available for over 10 years in Europe and can be used for any surgical procedure lasting up to 90 minutes where SA is considered appropriate and Bupivacaine was previously the only option. Up to 120 minutes is possible for lower dermatomal procedures. Its baricity allows manipulation of block level by dose and patient positioning; 0.5ml(10mg) being adequate for a perineal block and 3ml(60mg) for periumbilical procedures. 2-chloroprocaine 1% is licenced in Europe for 40 minutes of surgical time although procedures of 70-80 minutes may be achieved if knee or foot/ankle procedures are planned. By targeting the anaesthetic to suit the length of surgery these agents are increasingly being used for non day-case procedures to maximise the benefits of SA whilst addressing the issues of urinary retention, delayed mobilisation and patient satisfaction.

Enhanced recovery regimes for major arthroplasty have employed "low-dose" spinal bupivacaine, often with added opioid, over a number of years in an attempt to overcome the limitations of a long acting agent (4). Failure of adequate block and side effects such as urinary retention are still common and, as such, heavy sedation is often used to compensate for inadequate anaesthesia. As arthroplasty surgery evolves down the day case route the use of "normal dose" prilocaine and 2-chloroprocaine is becoming increasingly common to achieve adequate analgesia for surgery whilst allowing rapid recovery without the unwanted side effects. Traditionally the anaesthetist might allow a patient to return to the ward assuming them to be pain free due to persistent spinal block, only for it to wear off later in the evening where they are "out of sight, out of mind". Clearly a more rapid offset of spinal block results in the need to appreciate the increasing importance of quality multimodal analgesic regimes including motor sparing RA techniques as part of the package and the need to optimise analgesia prior to discharge from PACU. This is generally an approach to be encouraged whatever the mode of anaesthesia.

Data from Guys and St Thomas' Hospital in London during the COVID pandemic has demonstrated a rise in emergency surgical procedures performed under RA as the sole technique from 11% in the corresponding period in 2019 to 26% in the peak of the crisis (5). Procedures such as perianal abscess drainage, hernia surgery, ERPC, the majority of lower limb trauma surgery and many more can be achieved with the exclusive use of the newer spinal agents allowing a rapid recovery and discharge.

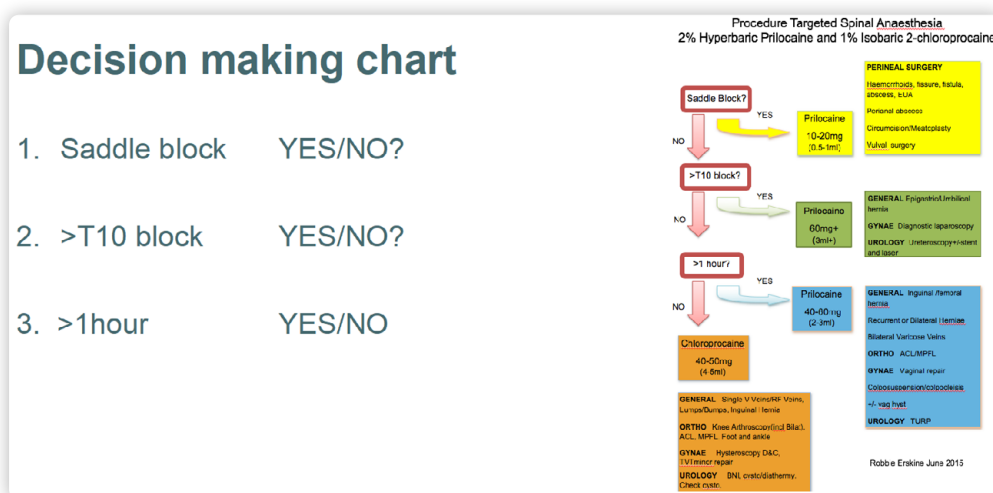


Fig 2 «Decision making is best left to each independent practitioner but in order to guide the practical process of choosing which drug to target to each procedure I have developed a pragmatic flowchart.»

The availability of reliable, short-acting spinal agents during the COVID-19 pandemic as an alternative for procedures traditionally performed with general anaesthesia has been timely. Once the advantages of shorter acting SA techniques have been appreciated along with increasing experience and familiarity they may well be offered increasingly to patients as a routine option in the post COVID-19 era (Fig1).

I have made a few suggestions as to which spinals and doses may be used for particular procedures, however it is not possible or practical to be comprehensive and over-prescriptive. Decision making is best left to each independent practitioner but in order to guide the practical process of choosing which drug to target to each procedure I have developed a pragmatic flowchart (Fig 2),(6) which asks three simple questions in each chosen case. Whilst being in no means comprehensive it has served as a useful aid to help new users to choose correctly. The guide is aimed at ambulatory surgery but can act as a guide for any procedure including, for example, ambulatory lower limb arthroplasty or hip fracture anaesthesia.

Many RA practitioners have embraced the increase in interest in their field with the advent of USGRA over the last 15 years as well as the enthusiasm for the development of new targeted approaches, increased success rates and improvement in safety that it has brought. SA is sometimes forgotten in the excitement but is, and will remain, the most commonly performed single RA technique in the world. New spinal anaesthetic approaches will only increase its popularity both in the present pandemic and beyond, and together with RA are already contributing to reduced hospital stay and a better patient experience.

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- B Ben-David, E Solomon, H Levin et al. **Intrathecal fentanyl with small-dose dilute bupivacaine: better anaesthesia without prolonging recovery** Anaesth Analg 85(3): 560-5 1997
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ESRA's website new developments



Clara Lobo (Editor of ESRA Updates; Cleveland Clinic Abu Dhabi, UAE) @claralexlobo



“The main objective of this new content on ESRA's website is to improve the value the experience of our Members when they visit us virtually.”

The ESRA website is ESRA's gateway! Now, more than ever! It is through the website that the Society presents itself to the members and visitors.

The intention for this development, therefore, was that this new page mirrors the young and dynamic spirit of ESRA, to spread the word of its mission of education, research and training in Regional Anesthesia and Pain Therapy.

This higher mission compelled ESRA to rethink its website and add new pages for clarity, consistency, relevance and deliver the right message with power, conviction, simplicity, assertiveness for a larger audience.

The main objective of this new content on ESRA's website is to improve the value the experience of our Members when they visit us virtually, engage them and persuade them to take action.

ESRA Guidelines page aggregates in the same place the main guidelines and recommendations from ESRA, ESRA Family, PROSPECT and about COVID19.

Thus, in a harmonious, friendly way you can find the recommendations developed by ESRA in partnership with other societies in the ESRA guidelines TAB, the recommendations of each national society in the TAB National Guidelines, use a quick access to PROSPECT recommendations (the scientific branch of ESRA) and, finally, consult the recommendations developed in partnership with the ASRA on Regional Anesthesia and Pain Therapy in COVID19 patients.

[ESRA Guidelines](#)

[National Guidelines](#)

[ESRA Prospect](#)

[Covid 19 Guidelines](#)

The content will be in permanently under development and adaptation.

We hope you enjoy!

We look forward to your feed (back and forward), to continue to improve.

Quick Journal Club



Nuala Lucas (Co-Editor of ESRA Updates, Norwick Park Hospital, Harrow, UK) @noolslucas



Kris Vermeylen (Co-Editor of ESRA Updates, AZ Turnhout, Belgium) @KVermeulen



Sari Casaer (GZA Antwerpen, Belgium) @SCasaer



“ When I think about the publications that caught my interest, or kept running through my mind in 2020, my first choice is the Editorial of White and Shelton published in *Anaesthesia*. ”

Anesthetic literature is one of the reasons people alter their clinical practice. The number of published articles in numerous journals is immense. But how can one differ clinically relevant or interesting articles from articles of less clinical importance? For those scientific active it all seems logic who to follow and what to read. But lots of colleagues depend for this info on cited literature in presentations (e.g. during meetings) or face-to-face discussions during networking sessions.

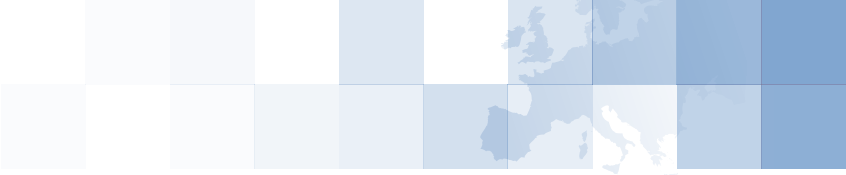
Since the start of the COVID pandemic however real time meetings could not or hardly be organized and networking sessions are banned.

We would therefore like to introduce a new section in our ESRA Updates. Every edition of the ESRA Updates we will ask a colleague to select one (or more) article(s) which for him/her were/are important, interesting or changed their clinical practice. This choice can be a general big randomized study but can also be very personal. Each of these collaborators will explain their choice.

We would like to invite all readers if they come across an article they find worthwhile sharing for what reason at all to contact one of the members of the editorial team.

For this edition Dr Sari Casaer (GZA hospitals, Antwerp, Belgium – board member BARA) selected her most recent top 3 of interesting articles.

*“When I think about the publications that caught my interest, or kept running through my mind in 2020, my first choice is the Editorial of White and Shelton published in *Anaesthesia*¹, calling out to the community of anesthetists to abandon inhalational anaesthesia. It describes the non-negligible impact on the climate of one of our most common daily interventions and predicts, or begs for, a possible major shift in our daily practice during this century. The subsequent correspondence^{2,3} seems to temper the drastic change needed, but anyway all the recited arguments are also in favor of the importance of regional anesthesia. Shifting the opinion away from general anesthesia as the ever available first line option. Regional anesthesia is promoted as the main tool for perioperative management whenever possible, not only as a ‘fun technical alternative’ for the ones motivated and interested to broaden their practice and aiming to spare opioids. The same remarks are made by Kuvadia⁴, launching the beautiful name ‘green-gional’ anesthesia, a technique with global benefit.*”



Another remarkable publication is the editorial by Leng and Mariano on marginal gains in enhanced recovery⁵. Reading this one feels even great names as Ed Mariano acknowledge the difficulties encountered during implementation of clinical pathways. The need of 'big differences' by changing one thing to the high-level medicine we are already practicing is tempered. A little better is also better, an important thought I will always keep in mind and applicable while reading many different research results. Anesthesia as an Olympic discipline, with a comparison to the efforts and reasoning made by the British Cycling team.

At last I chose to mention the daring discourse on anesthesia for joint arthroplasty by Schwenk and Johnson⁶. It gives a short and clear overview of the ongoing discussion on spinal versus general anesthesia in a written pro/con debate. Even when in doubt if outpatient TJA is really a necessary target to pursue, this discussion is applicable to all inpatients as well. Many of the same arguments can be found in the nice overview on hip fracture repair, again by Shelton and White⁷ (apparently we share the same interests). And it all comes down to the most essential conclusion: the importance of preoperative preparation, patient selection, risk stratification and tailored anesthesia."

1. White, S.M. and C.L. Shelton, Abandoning inhalational anaesthesia. *Anaesthesia*, 2020. 75(4): p. 451-454.

2. Tapley, P., M. Patel, and M. Slingo, Abandoning inhalational anaesthesia. *Anaesthesia*, 2020. 75(9): p. 1257-1258.

3. White, S.M. and C.L. Shelton, Abandoning inhalational anaesthesia: a reply. *Anaesthesia*, 2020. 75(9): p. 1258-1259.

4. Kuvadia, M., et al., 'Green-gional' anesthesia: the non-polluting benefits of regional anesthesia to decrease greenhouse gases and attenuate climate change. *Regional Anesthesia & Pain Medicine*, 2020. 45(9): p. 744-745.

5. Leng, J.C. and E.R. Mariano, A little better is still better: using marginal gains to enhance 'enhanced recovery' after surgery. *Regional Anesthesia & Pain Medicine*, 2020. 45(3): p. 173-175.

6. Schwenk, E.S. and R.L. Johnson, Spinal versus general anesthesia for outpatient joint arthroplasty: can the evidence keep up with the patients? *Regional Anesthesia & Pain Medicine*, 2020. 45(11): p. 934-936.

7. White, S.M. and C.L. Shelton, Anesthesia for hip fracture repair. *BJA Education*. 20(5): p. 142-149.

Test your knowledge in spinal anatomy



Peter Merjavý (Craigavon Area University Teaching Hospital, Northern Ireland, UK) @PeterMerjavý

1. There are seven cervical vertebrae. How many cervical spinal roots are there?

- a. 7
- b. 6
- c. 8
- d. 4 cervical (the rest are brachial)

2. What is the function of denticulate ligament?

- a. Stabilisation of medial atlanto-axial joint between dens (odontoid process) and articular facet of C1
- b. Stabilisation of lateral atlanto-axial joint between dens (odontoid process) and lateral facets of C1
- c. Stabilisation of atlanto-occipital joint between C1 and cranium
- d. Stabilisation of spinal cord within the vertebral canal

3. The ligamentum flavum consists of right and left halves that join together. In what areas (levels) is this midline fusion frequently incomplete?

- a. Cervical and upper thoracic
- b. Mid-thoracic
- c. Lower thoracic
- d. Lumbar

4. In childhood, the sacral vertebrae are connected by cartilage and only later they fuse to form the bone. At what stage does this happen?

- a. Around year 5
- b. Around year 9
- c. Around year 12-13
- d. After puberty

5. Which of the following book names has some connection with spinal anatomy?

- a. Handbook
- b. Atlas
- c. Compendium
- d. Album

6. We are all familiar with the ligamentum flavum. Do you know what the word “flavum” means?

- a. It is named after the colosseum – latin “amphiteatrum flavium” due to proximity of the vertebral column
- b. Comes from word “Flave” – to be smooth, error free, visually outstanding to highlight high success using the LOR technique
- c. Comes from “flavor” or “flavour” as the ligamentum flavum was used as special spice for certain meals in middle ages
- d. It is often used in scientific names for animals and plants to refer to the yellow colour

7. Tuffier’s (intercristal) line:

- a. Reliably identifies the L4/L5 interspace
- b. Was described for the first time in France by Theodore Tuffier in 1900
- c. Was described for the first time in New York by George W Jacoby in 1895
- d. Was originally described to measure the length of lower limbs in patients with Rickets disease

Correct answers:

1. c 2. d 3. a 4. d 5. b 6. d 7. c

EDRA MCQ



José Aguirre (Balgrist University Hospital, Switzerland) @JAG_4773

Baclofen acts on what type of receptor?

- a. Opiate k
- b. GABA-B
- c. Postsynaptic Alpha2 adrenergic
- d. Acetylcholine

Answer :

- b. GABA-B

EDPM MCQ



Sam Eldabe (Chair of EDPM, The James Cook University Hospital Middlesbrough, UK)

Recognised clinical features of Complex Regional Pain Syndrome (CRPS) Type I include:

- a. Evidence of nerve damage
- b. Dystonia
- c. Allodynia
- d. Joint pain
- e. Motor weakness

Answer :

- a. False (CRPS type I does not include evidence of nerve damage this is the case in CRPS type II)
- b. True (Dystonia and motor anomalies occur in CRPS I dystonia of the lower limb usually takes the characteristic shape of equinus and inversion position of the foot)
- c. True Allodynia is a hallmark of CRPS and a diagnostic criterion
- d. True Although not per se a diagnostic criterion of CRPS joint pain will occur with the spread of CRPS and limitation of movement is part of CRPS. Here it helps to read the stem again before answering the question based on diagnostic criteria alone
- e. True weakness is a diagnostic criterion

Goodbye 2020 competition



Clara Lobo (Editor of ESRA Updates; Cleveland Clinic Abu Dhabi, UAE) @claralexlobo

Find below the winners of our Goodbye 2020 contest

PHOTOS

Prizes : 1 annual ESRA membership + ESRA pain book



Allan KOCHI «In the heat of the second wave, I could have used better vision, clarity and just needed a rest.»



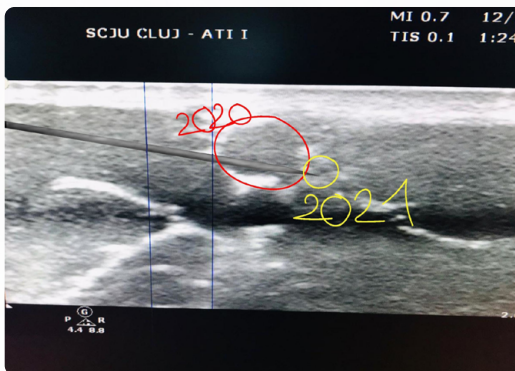
Catarina RODRIGUES «A photography which reflects the changes in our anesthetic practice during the last year and mirrors the hope in the year 2021.»



Neha HASIJA



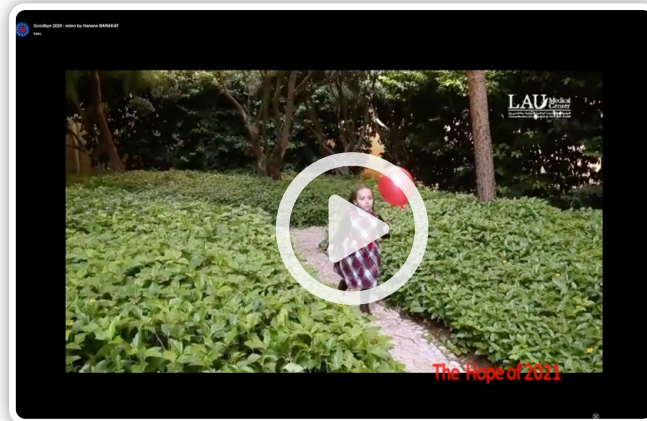
Seyedpouzhia SHOJAEI



Virgil-Ioan POLTORAC «I am a resident doctor in anesthesia and intensive care medicine at Cluj County Emergency Hospital Romania.»

VIDEOS

Prizes : 1 ESRA event registration + 1 annual ESRA membership + ESRA pain book



«This video is my most memorable memory of 2020. The moment that immortalized my joy when extending my covid 19 patient. This video spread on social media and gave morale to people about covid 19 on national channels. It allowed me to reach out to people and motivated everyone while dealing with the disease. I also wanted to share with you here again.»