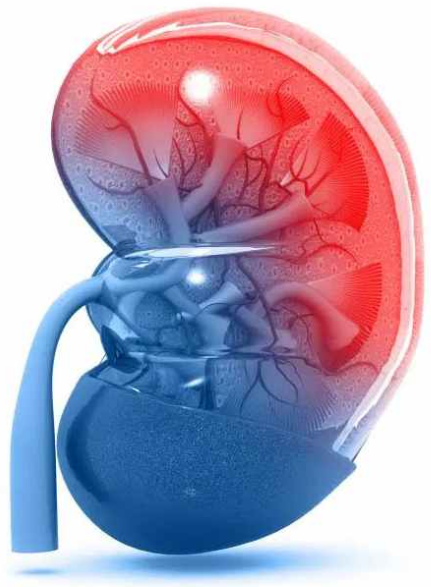
UAU NEWSLETTER

July - 2022



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NEWSLETTER

President Message

Dear friends and fellow members

Your new president is addressing you for the first time in this new session and I bring greetings from Agra, The city of Taj and symbol of love and harmony.

On March 26th and 27th we had our annual meeting at Gorakhpur and I congratulate the organizing chairman Dr Arvind Tewari and organizing secretary Dr Dilip Mani Tripathi for a wonderful conference. It was attended by a record number of delegates in addition to renowned faculty like the USI past president Dr Mallikarjuna and USI president Dr R Sabnis. A galaxy of distinguished senior members also graced the occasion. It was a highly successful meet in terms of scientific content as well as arrangements. I also congratulate Dr Neeraj Agrawal from whom I took over as president for 22-23 for successfully completing his tenure and showing the road ahead. In his tenure we started online teaching programme to replace physical conferences out of compulsion but now this has become a necessity. I also thank all the outgoing council members and especially applaud Dr Vijay Bora for his immense contribution to the growth of UAU not only as hon secretary for last 2 years but also hon treasurer for the preceding 4 years. His promotion as president NZ USI is a proud moment for all of us and is a result of immense support that he enjoys in UAU.

I take this opportunity to urge all of you to take part actively in all the meetings of urological society of Uttar Pradesh. We are now nearly 250 member strong society. As the number of urology residents passing out each year increases, the penetration in smaller cities and towns is bound to increase. It is a need of the hour for the smaller cities to have their own active & vibrant City Clubs, so that local handling of issues can be taken up and working environment of urologists is better. UAU as a parent body would encourage and help such City Clubs. In this regard I would like to see more bids from smaller cities for midterm meetings, CUEs and workshops.

At the present time we are facing new challenges from companies selling Urology as a commodity to unwary public and also exploiting the young urologists. Similar difficulties are coming from government bodies and corporate managements to which we have to respond keeping patients' and our interests first. I strongly advise all new comers to strictly avoid any alliance with middle men and such companies which is against the medical ethics and rules and regulations of NMC.

We have had successful online transmission of academic activities of 4 teaching institutes of UP, namely SGPGI, KGMC, BHU and RML Lucknow last year. In this series I am happy to announce that my hospital at Agra, Pushpanjali Hospital has started DNB programme in Urology from this year and will also be airing academic sessions in coordination with other institutes on monthly basis. The link is shared and all UAU members, residents and faculties of other institutes as well as anybody from any zone or USI are urged to participate in good numbers. I am happy to share that already we had one online teaching activity on 29th April when a detailed discussion on partial nephrectomy for RCC took place and was appreciated by everybody. Hope to improve the format and participation as we move forward. Suggestions in this regard are welcome. I understand that everybody has his own busy schedule but please take time out to attend these activities for the encouragement of our residents and also for mutual learning and camaraderie.

President Message

I extend a very warm welcome to the new council members for the year 2022-23 and hope for whole hearted and unconditional support and help in decision making and arranging activities in this coming year. The new council had its first meeting on 27th March at Gorakhpur and resolved to improve participation of members in academic sessions in the coming midterm and annual conferences. We have a very able secretary in Dr Sanjoy Sureka from SGPGI who will take our association to newer heights, I am sure. At the same time, I would like to mention the unpleasant experience of poor attendance and apathy in executive council meetings by a few council members last year which hopefully will be corrected this year.

Hope to march forward with your help to make our branch best in the country.

Long live UAU

Dr Anurag Yadav
President UAU

UAU Council

President ***Dr Anurag Yadav, Agra***
President Elect ***Dr Subhash Yadav, Meerut***
Imm. Past President ***Dr Neeraj K Agarwal, Bareilly***
Secretary ***Dr Sanjoy Sureka, Lucknow***
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Dr Yashaswi Singh, Varanasi

Hon Secretary's Message

My dear colleagues,

As we are heading towards the second half of 2022. We are largely out of the COVID though there can always be hiccups. I am sure that the pandemic has made us a staunch supporter of healthy lifestyle. We have come out of the COVID also with a strong sense of embracing technology. Hybrid conference at Agra and meeting on various digital platforms testifies that we as a society are now more attuned to the idea of distance learning with commitment towards our society.

After all the challenges we have had we could finally organize a grand physical meeting at Gorakhpur in March 20222. The mood and attendance in the meet is an acknowledgment of our successful fight against COVID. The participation and contribution from the esteemed members was really encouraging. The majority of faculty members worked really hard to make the sessions informative and interesting. The academic deliberations in combination with the spiritual magnificence of the city made this an unforgettable gathering. Under the able guidance of past secretary Dr Vijay Bora very interesting scientific contents were discussed and they were really thought-provoking and the feedback so far has been encouraging. However, real feedback comes from critical appraisals and I would be glad to hear from all of you regarding the shortcomings in the program and suggestions to improve it. There have been few areas where we definitely need to improve. The punctuality and sticking to the program schedule took a major hit from the beginning of the conference. We need to be more professional with our presentations and sessions. The time for interaction and discussions gets curtailed if speakers overshoot their timings and speakers are expected to reach at time . We definitely need to work on this aspect. The list of prize winners is included in the newsletter and they deserve hearty congratulations.

New UAU executive council have taken over under the able presidentship of Dr. Anurag Yadav from Agra. As a secretary I would take the opportunity to thank the outgoing executive council for their extraordinary efforts and contribution in spite of the pandemic. They successfully promoted high standards in the practice of Urology when we were unable to think of anything other than the pandemic.

Moving forward with a purpose, we had our 1st meeting of the new executive council at Gorakhpur on 27th March. Following agendas were covered:

1. Pending issues relating to GST, 80G, 12A and others
2. To assign an accountant with good knowledge of GST filing
3. To add new signature in account
4. To build an efficient membership drive
5. Need to update the website
6. A need to make SOP's and checklists for activities
7. Promote acedemics by conducting atleast once a month morning class and expand the horizon by encouraging participation from other states of north zone
8. Conduct 2-3 midterm CME in next 1 year

2nd meeting was held online on 2nd May. The topics of 1st meeting like GST, 80G, 12A, accounts, website, and membership drive were reinforced. Designing certificates like for the preceding executive council were also discussed.

Under guidance of our President Dr Anurag Yadav, new council are committed to work as a team to take our society to new heights with continuing various educational activities, work for social cause and increasing our strength. I also like to invite case reports or scientific articles from all members which will be published in newsletter every two monthly.

At the end, we have come across a crises similar of which have been witnessed by only a few generations. Many have a sense of loss, some have lost their family members, some especially residents have suffered in their training. No loss is insignificant but the answer to any adversity is courageously moving forward with faith.

Have a fabulous and magnificent life.

Dr Sanjoy Sureka
Hon Secretary UAU

Case Report

Perioperative Management of Autonomic Dysreflexia: How to Safely and Successfully Navigate Through the Treacherous Storm? A Case Study and Review of Literature

Dr Madhur Anand, Dr Sanjoy Sureka [SGPGIMS, Lucknow]

Case study:

A 35 years old male patient was admitted with us with diagnosis of neurogenic bladder and vesical calculus. He had a history of bullet injury causing contusion of D2 level of spinal cord in 2014. Since the injury he had developed sensory and motor neuropathy below the level of D2. He was on catheter from 2014 to 2017 and on CIC afterward. He was found to have a 4 cm vesical calculus during evaluation for febrile UTI. His examination was significant for bilateral lower limb power of 2/5 and on attempted movement against gravity he developed sudden spastic jerky movements of lower limb requiring strong manual restriction. There was history of severe headache, precipitated hypertension and flushing with catheter blockage or during urodynamics. Recently he had such episodes at home due bladder spasm probably due to stone.

After admission a neurology review was sought, and he was diagnosed with autonomic dysreflexia. Dose of Baclofen and Tolperisone was adjusted. Patient was counselled for the need and possible complications of surgery and anesthesia and a written informed consent was obtained. Patient was taken up for surgery under GA with complete neuromuscular blockade with non-depolarizing muscle relaxants and adequate depth of anaesthesia to avoid any worsening of autonomic dysreflexia and percutaneous cystolithotripsy was done with pneumatic lithoclast. He didn't develop any worsening of autonomic dysreflexia and was discharged on first postoperative day.

Review of literature:

Incidence and determinants

Autonomic dysreflexia occurs in 48 to 70% patients with spinal injury above T6 and occurs only rarely when injury is below the level of T10.[1]

Determinants of dysreflexic episodes are the level and completeness of injury. In the initial days after spinal injury, it is rare to find autonomic dysreflexia with earliest reported episodes on 4th day after injury. However, approx. 92% of the patients who ultimately develop autonomic dysreflexia do so within first year after injury.[2,3]

Symptoms, Presentation, and precipitating factors

It is characterized by episodes of sudden exaggerated reflexive increase in blood pressure (atleast 25 mm Hg or 20% or more above baseline) in response to a stimulus below the level of neurological injury.[4,5]
The stimuli may be **bladder** (most common 85%; catheter blockage, distension, stones, infection, spasms) **bowel** (constipation, impaction) **back passage** (hemorrhoids, rectal issues, anal abscess, fissure) **boils** (skin lesions, infected ulcers, decubiti) **bones** (fractures, dislocations) and **babies** (pregnancy and delivery).[6] Some pharmacological agents like duloxetine and amitryptiline have also been implicated in the causation of autonomic dysreflexia. Non traumatic causes also include radiation myelopathy and cisplatin induced polyneuropathy.[7,8]
Sudden severe throbbing headache, hypertensive crisis, intracranial hemorrhage, brady and

tachyarrhythmias and even myocardial infarction may occur in some patients. Profuse diaphoresis and flushing, piloerection above the level of injury, nausea, vomiting, dizziness, visual disturbances, retinal detachments may also occur in certain patients.[9]

Pathophysiology

Spinal cord injuries below T10 rarely result in autonomic dysreflexia because the splanchnic innervation remains intact and allows for compensatory parasympathetic dilation of the splanchnic vascular network.[10]Stimulus below the level of the injury sends afferent impulses to the intermediolateral grey columns of spinal cord that lead to reflex sympathetic nervous system response from T6 to L2. The response is exaggerated due to lacking descending parasympathetic compensation and intrinsic post-traumatic hypersensitivity. This causes diffuse vasoconstriction to the lower two-thirds of the body, and a significant rise in blood pressure despite maximum parasympathetic vasodilation above the level of injury.[1,10]

With an intact autonomic system, this increased blood pressure would have activated the carotid sinus and aortic arch baroreceptors leading to a vagal response slowing down the heart rate and causing diffuse vasodilation to correct the increased sympathetic tone.[1]

With the spinal cord injury, the corrective parasympathetic response from medullary vasomotor center cannot travel below the spinal injury, and generalized vasoconstriction of the splanchnic, muscular, vascular, and cutaneous arterial circulatory network continues uninhibited, causing systemic hypertension which is often severe and potentially dangerous. The compensatory vagal and parasympathetic stimulation leads to bradycardia and vasodilation, which is limited above the level of the spinal cord injury.[4]

Perioperative considerations and anesthetic management

Perioperative management of these patients has always been a point of intrigue for clinicians. On one side the patient lacks any sensation of pain below the level of injury and it may be inferred that procedures can be done without any type of anaesthesia or block below the level of lesion. But on the other side, any manipulation may lead to worsening of autonomic dysreflexia. There are three main options for anaesthesia in these patients: monitored anaesthesia care (with or without conscious sedation), regional anaesthesia, and general anaesthesia. Majority of studies utilized some form of anaesthesia technique.[11]

It has been reported in literature that cystoscopic procedures can be safely completed only with a variety of antihypertensive agents and even major invasive open surgery like nephrectomy have been performed under epidural with no to minimal complications,[12] but the risk of hypertensive crisis makes it prohibitive to utilize such methods**.** The literature also suggests that perioperative complications are more common in patients when anaesthetic agents are not utilized. Although there are few published papers discussing the safety of not using any anaesthetic agents, they also recommend that lack of anaesthesia should be considered only with extreme caution and only in presence of an anaesthesiologist. Sedative agents may mask some symptoms due to ventilatory depression and the attending anaesthesiologist has to be more vigilant during use of these agents.[5,13]

A systematic review suggests that use of either general or spinal anaesthesia is recommended over the sedation or local anaesthesia. Both general and spinal anaesthesia are commonly used in surgical procedures for patients with high spinal cord injury. As of now, there is no consensus in the literature regarding a

standard of care that should be applied for all patients.[11]

Spinal anaesthesia appears to be a safe option and has become widely accepted as it reduces risks of AD and spasms. Unfortunately, effectiveness and level of block is found to be difficult to ascertain, and careful monitoring is still required. Premedication using nifedipine has been found to be effective, but anticholinergics have not shown much benefit unless it induces detrusor areflexia.[14] Spinal anaesthesia is used as preferred modality of anaesthesia in 13.5% of such cases.[11]

The safety of general anaesthesia with neuromuscular blockade is well established in these patients and it is the most commonly used modality (68.5%) in patients prone to develop autonomic dysreflexia.[11] Adequate preoperative fasting is necessary as these patients have slower gastric emptying. Patients usually need lower doses of induction agents partly because of altered pharmacokinetics due to low blood volume and muscle mass. Sympathetic response to hypotension is often absent, and myocardial and CNS hypoperfusion may occur requiring treatment with vasopressors. There is no evidence showing superiority of any particular induction agent. Routine monitoring must be used before induction. If endotracheal intubation is needed, safe neck positioning should be ensured and difficult airway should be anticipated in patients with fixed cervical injuries. Threshold for awake fibreoptic intubation should be low. Non-depolarizing muscle relaxants can be safely used to facilitate intubation, although caution must be exercised when using succinylcholine. It should be reserved for patients requiring a rapid sequence induction. Anaesthesia may be maintained with inhalational agent or via total intravenous anaesthesia. Adequate depth of anaesthesia is imperative to reduce the likelihood of ADR and prevent spasms. Monitoring the depth of anaesthesia such as bispectral index may be useful.[5]

Spontaneous ventilation is usually adequate for short procedures, although in patients with cervical lesions, hypoventilation may result in hypercapnia and hypoxia. For longer procedure intermittent positive pressure ventilation may be needed; cardiovascular instability as a result of high pressures. Opiates should be used sparingly, because of their effect on postoperative ventilation.[5]

Major surgery involving large fluid shifts may require arterial blood pressure and cardiac output monitoring. Altered responses to blood loss makes the interpretation of these measures difficult and monitors capable of measuring stroke volume may provide useful information. Special attention is needed to pressure areas and limbs should be secured and padded to prevent injury from spasms. Urinary catheters should be visible and easily accessible. Warming should start in the anaesthetic room and continue into the recovery period. Before extubation, neuromuscular blockade should be fully antagonized, and the tidal volume and ventilatory frequency should be adequate. Patients with cervical injuries are best positioned supine in the recovery room. Pressure areas should be checked adequately and appropriate temperature should be used to prevent any inadvertent injury. Routine monitoring including regular blood pressure measurement should be continued until patients have been fully recovered as dysreflexia can also occur well into the recovery period. Adequate preparation with pharmacotherapeutic agents to reverse the dysreflexia episodes is therefore needed. Patient reassurance can be provided given most patients had uneventful recoveries post-administration of a reversal agent or by deepening of the anaesthetic agent. In summary, general or spinal anaesthesia is recommended over the sedation or local anaesthesia. [11]

Conclusion :

Autonomic Dysreflexia can be life-threatening, early recognition of symptoms, signs, and provoking noxious

stimuli as well as prompt treatment as outlined in this case report are critical in preventing morbidity and mortality of this vulnerable patient population. General or spinal anaesthesia is recommended over the sedation or local anaesthesia while operating such patients.

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UROLOGICAL ASSOCIATION OF UTTAR PRADESH

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Secretary Address:

Dr Sanjoy Sureka
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Email: office.uau@gmail.com
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