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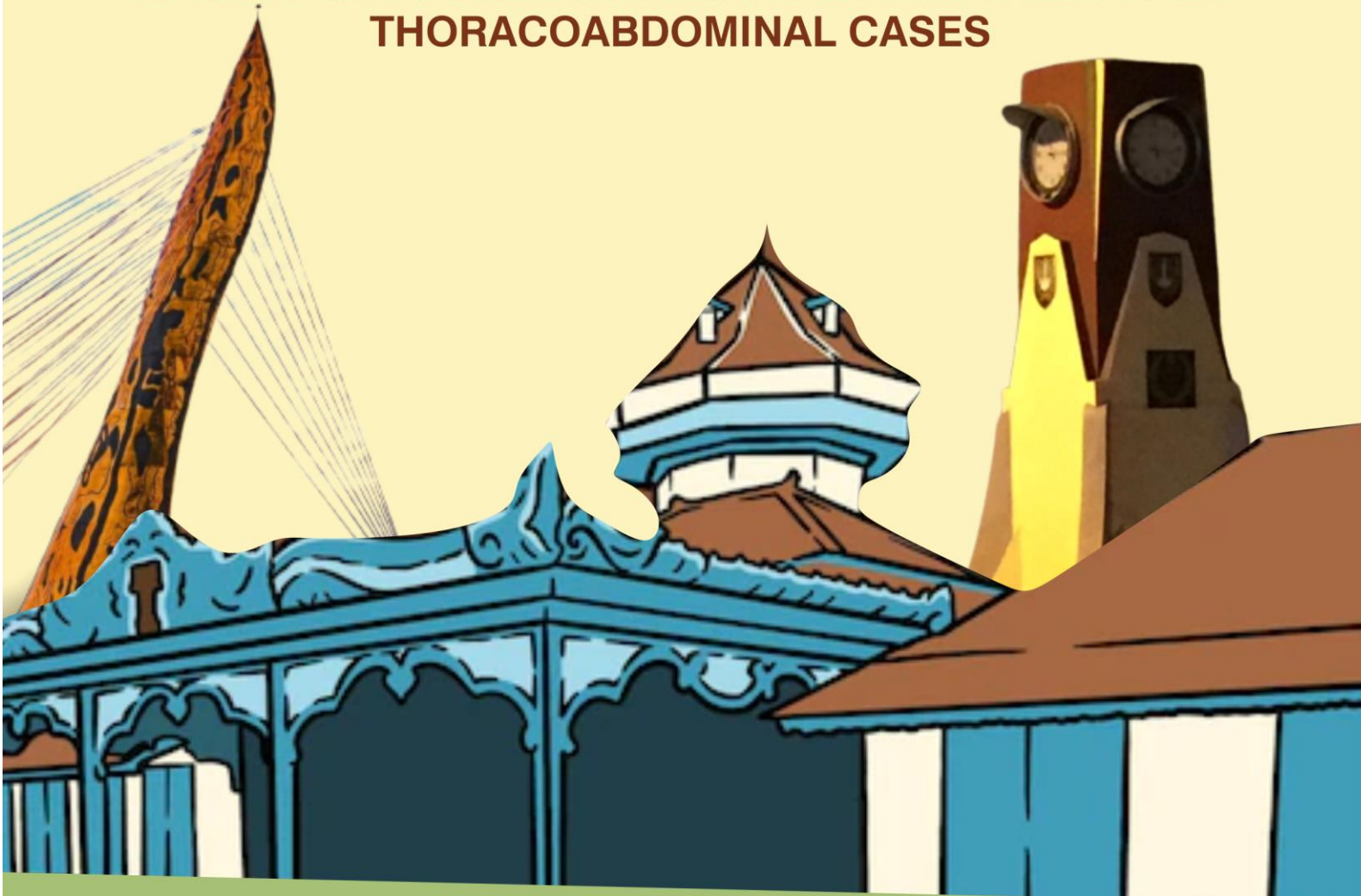
SOLO PERIOPERATIVE REGIONAL ANESTHESIA AND PAIN MANAGEMENT

COLLABORATE, INNOVATE AND OPTIMIZE PATIENT OUTCOMES IN REGIONAL ANESTHESIA FOR THORACOABDOMINAL CASES



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PROCEEDING BOOK 3rd SOPRANE SOLO 2022

COLLABORATE, INNOVATE AND OPTIMIZE PATIENT OUTCOMES IN REGIONAL ANESTHESIA FOR THORACOABDOMINAL CASES

" Regional Thoracoabdominal, Intensive Management, and Pain"

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PROCEEDING BOOK 3rd SOPRANE SOLO 2022
COLLABORATE, INNOVATE AND OPTIMIZE PATIENT OUTCOMES IN REGIONAL ANESTHESIA FOR THORACOABDOMINAL CASES

"Regional Thoracoabdominal, Intensive Management, and Pain"

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KUTIPAN

Alhamdulillahirrabbil'alamin,

Puji syukur kepada Allah SWT.

Berkat rahmat dan hidayah-Nya sehingga rangkaian kegiatan Meet The Expert CCRA *Case Conference Regional Anesthesia* (CCRA) Solo 2022 dan 3rd *Solo Perioperative Regional Anesthesia & Pain Management* 2022 (SOPRANE) yang bertema *"Regional Thoracoabdominal, Intensive Management, and Pain*" dapat terlaksana dengan baik dan lancar.

Penyelenggaraan SOPRANE ke-3 pada tahun 2022 bertujuan untuk meningkatkan pengetahuan anggotanya dengan menyegarkan dan meningkatkan pengetahuan anestesiologi dan aspek yang berkembang pada masyarakat melalui pertemuan ilmiah secara berkala. Pada SOPRANE 2022 telah dipresentasikan hasil penelitian, review, dan hasil pengabdian yang dilakukan oleh peneliti yang berasal dari berbagai instansi yang beragam.

Kami atas nama panitia ingin mengucapkan apresiasi tertinggi untuk sejawat sekalian dalam kontribusi terhadap peningkatan dan penyegaran pengetahuan anestesiologi melalui artikel ilmiah SOPRANE 2022. Berikut kami lampirkan 10 Besar Finalis Artikel Ilmiah SOPRANE 2022 yang akan diterbitkan pada *Solo Journal of Anesthesi, Pain, and Critical Care* (SOJA)

"A Pecs II Block As Post Operative Analgesia After Modified Radical Mastectomy" oleh Imron Rosyadi, Khairul Anam, Mochamat

"The Surprisingly Difference In Postoperative Pain Scores Between Intravenous Metamizole And Intratechal Morphine" oleh Herwinda Taufani Jenierahayu, Antonius Beny Setiawan, Nasrulloh

"Relationship Between Spinal Anesthesia Injection Speed And The Incidence Of Hypotension In Patients Undergoing Cesarean Section" oleh Fikri A Mafazi, Donatila Novrinta, Himawan Sasongko

"Effectiveness Of Low-Dose Intermittent Epidural Bolus Of 1 Mg Morphine As Postoperative Analgesia: Case Series" oleh Gusti Ayu Pitria Septiani, Dedi Fitri Yadi, Suwarman

"Anti-Nmdar Encephalitis Management : Case Series" oleh Indriyani Wijaya, Calcarina Fitriani Retno Wisudarti, Bowo Adiyanto, Farhan Ali Rahman

"Thoracal Paravertebral Or Serratus Anterior Block Combine With Combipecs For Modified Radical Mastectomy: Case Series" oleh Wandito Gayuh Utomo, Calcarina Fitriani, Farhan Ali

"Erector Spinae Block Vs Paravertebral Block In Breast Cancer Surgery: A Systematic Review And Meta-Analysis" oleh Rizky Rahmad Tri Cahyo, Doso Sutiyono, Intan Karmila, Ismini Aufa Kamilia

KATA PENGANTAR

Assalamu'alaikum warahmatullahi wabarakatuh.

Alhamdulillahirrabbil'alamin, Puji syukur kepada Allah SWT. Berkat rahmat dan hidayah-Nya sehingga rangkaian kegiatan Meet The Expert CCRA *Case Conference Regional Anesthesia* (CCRA) Solo 2022 dan 3rd *Solo Perioperative Regional Anesthesia & Pain Management* 2022 (SOPRANE) dapat terlaksana dengan baik dan lancar.

Kegiatan SOPRANE 2022 bertema "*Regional Thoracoabdominal, Intensive Management, and Pain*" yang bertujuan meningkatkan pengetahuan anggotanya dengan menyegarkan dan meningkatkan pengetahuan anestesiologi dan aspek yang berkembang pada masyarakat melalui pertemuan ilmiah secara berkala. Rangkaian kegiatan SOPRANE 2022 mengangkat konsep hybrid yaitu acara yang menggabungkan antara pertemuan online dan pertemuan offline, sehingga pertemuan dapat dinikmati oleh seluruh sejawat di belahan dunia manapun secara langsung dan interaktif.

Pada SOPRANE 2022 telah dipresentasikan hasil penelitian, review, dan hasil pengabdian yang dilakukan oleh peneliti yang berasal dari berbagai instansi yang beragam. Hasil seminar tersebut kemudian didokumentasikan dalam proceeding ini.

Atas terselenggaranya seminar dan terselesaikannya Proceeding ini, panitia menyampaikan penghargaan setinggi-tingginya disertai ucapan terimakasih kepada semua pihak yang telah membantu kelancaran kegiatan ini terutama kepada dr. Eko Setijanto., M.Si.Med, Sp.An, KIC selaku Ketua Perdatin Komisariat Surakarta dan dr. Ardana Tri Arianto, M.Si.Med, Sp.An, KNA selaku Kepala Program Studi Anestesiologi dan Terapi Intensif Fakultas Kedokteran Universitas Sebelas Maret Surakarta atas segala bentuk dukungan dan partisipasi terhadap rangkaian kegiatan SOPRANE.

Kami juga menyampaikan penghargaan setinggi-tingginya disertai ucapan terimakasih kepada para keynote speaker atas bekal ilmu yang telah dibagikan, kepada para penyunting atas jerih payahnya, kepada jajaran staf Departemen Anestesiologi dan Terapi Intensif beserta staf atas dukungannya, kepada para pemakalah atas kontribusi pemikirannya, dan kepada para peserta atas partisipasinya. Semoga Tuhan Yang Maha Pemurah mencatat sebagai amal sholeh dan membalas dengan kebaikan-kebaikan di masa mendatang.

Kami menyadari bahwa masih banyak kekurangan dalam penyusunan proceeding ini sehingga saran dan kritik yang membangun sangat diperlukan. Semoga proceeding ini bermanfaat bagi para pembaca dan pihak yang memerlukan.

Wassalamu'alaikum warahmatullahi wabarakatuh.

Surakarta, Desember 2022

DAFTAR ISI

RESPIRATORY FAILURE ON PATIENT WITH OBESITY HYPOVENTILATION SYNDROME AND CONGESTIVE HEART FAILURE

RESPIRATORY FAILURE ON PATIENT WITH OBESITY HYPOVENTILATION SYNDROME AND CONGESTIVE HEART FAILURE

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ABSTRACT

Background : Obesity hypoventilation syndrome (OHS), also known as Pickwickian syndrome, is a condition characterized by obesity (BMI ≥ 30 kg/m2), awake hypercapnia (PaCO2 ≥45 mmHg), and sleep-disordered breathing which cannot be attributed to other conditions. OHS prevalence has been estimated to be ~0.4% of the adult population. Not only that the state of obesity restricts lung capacity and makes an individual prone to obstructive sleep apnoea, but also predisposes the patient into other comorbidities, especially cardiovascular abnormalities. All these conditions may put the patient into respiratory distress with high mortality rate.

Case Illustration : A 39-years old woman was brought to ER with shortness of breath for two weeks. She had histories of uncontrolled hypertension, type-2 diabetes, and heart failure. She was morbidly obese with approximated weight of 150 kg and height of 160 cm. The patient was later admitted to ICU and intubated after increasing hypercapnia.

The patient was later given 20 milligrams/hour of continuous furosemide up to four days which later tapered off up to intermittent doses and continuous drip of isosorbide dinitrate which at one point were also combined with nicardipine. The patient was also given meropenem, n-acetylcysteine, and blood glucose monitoring. During her ICU stay, the patient self-extubated twice, which after the second attempt she successfully breathe normally with non-rebreathing mask. Further oxygen weaning was later performed until the patient was able to breathe without oxygen supplementation. She was discharged from the hospital after nine days.

Conclusion : We described a patient with obesity hypoventilation syndrome accompanied by heart failure, which contributed to her respiratory failure. While managing an obese patient might be challenging, clinicians must be aware of OHS and the complexities it might impose. A comprehensive treatment plan is needed in terms of managing the patients with OHS.

Keywords: heart failure, obesity, obesity hypoventilation syndrome, respiratory failure

ANESTHESIA MANAGEMENT IN PATIENT WITH TRIGEMINAL NEURALGIA UNDERGOING MICROVASCULAR DECOMPRESSION (MVD)

ANESTHESIA MANAGEMENT IN PATIENT WITH TRIGEMINAL NEURALGIA UNDERGOING MICROVASCULAR DECOMPRESSION (MVD)

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ABSTRACT

***Background**: Trigeminal neuralgia is a recurrent pain in the unilateral face confined to the trigeminal nerve innervation. To alleviate the causes of physical compression of the trigeminal nerve, the most effective treatment is microvascular decompression. The procedure requires a total craniotomy for the decompression of the cranial nerve and using general anesthesia.*

***Case Illustration**: A 63-year-old female patient came in with a right facial pain as early as 4 years ago. The patient had a history of sudden fainting in 2015. The patient has received medication treatment carbamazepine 200mg/24 hours and ferrous sulfa 1 tablet/24 hours. A history of allergies, asthma, seizures, fever, cough, runny nose is denied. The patient appears to be moderately ill with composting awareness. Vital sign: BP=126/74 mmHg, HR=102 x/m, RR=22x/m, T=36.8 C and SpO2=99% room water. BW 51 kg. 157 cm. The physical examination obtained anemic conjunctiva (+/+), the mouth of mallampati II opens the mouth of 3 fingers. Hemoglobin 11.1. Hematocrit 36.6. Leukocytes 5,900. Platelets 349,000. Ureum 20. Creatinine 0.95. Sodium 136. Potassium 3.5. Chloride 101. On routine brain MRI and brain IT obtained the image of right trigeminal nerve compression, suspect small vessels ischemic in left corona radiata, left centrum semiovale; and no image of bleeding, SOL, or increased of intracranial pressure.*

***Conclusion**: Carbamazepine may be used in trigeminal neuralgia patient. Somehow, microvascular decompression is the most effective way to release the pain caused by trigeminal nerve pressure.*

***Keywords**: Trigeminal neuralgia; microvascular decompression*

TPVB WITH CATETHER AND SAP BLOCK IN WIDE EXICION BREAST TUMOR SURGERY

TPVB WITH CATETHER AND SAP BLOCK IN WIDE EXICION BREAST TUMOR SURGERY

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ABSTRACT

Background *: Breast cancer is a malignancy originating from breast tissue, both from the ductal epithelium and its lobules. The incidence of breast cancer is 38 per 100,000 women. In cases of recurrent breast tumors with multiple tumors, its requires wide excision and flap. This procedure causes extensive tissue loss and massive chest wall defects. Thoracic Paravertebral Block (TPVB) with catether and Serratus Anterior Plane (SAP) block can provide anesthesia with a wide area of procedure from the hemithorax to the upper abdomen. The advantage of catheter application is that it can be done with top up of anesthetic drugs both durante or for postoperative analgesia.*

Case Illustration *: The patient is 35 years old (47 kilograms and 153 cm, BMI 20.5) with complaints of a recurrent multiple lump in the right breast since 5 months ago. Patien with history MRM right breast 1 year ago. The patient was then scheduled for wide excision and flap. Anesthesia technique was performed ultrasound guided TPVB with a catheter and SAP block with bupivacaine 0.5 % 15 cc for TPVB and 10 cc for SAP block. During surgery the patient was given sedation with dexmedetomidine and propofol tiration. For postoperative analgesia we use mixture of ropivacaine 0,125 % and fentanyl 12,5 mcg per cc continuous 4 cc/hour. Durante and postoperative hemodynamics are stable. The quantity of pain up to 24 hours postoperatively is minimal with NRS of 0-1, stable hemodinamic, and no side efect was found.*

Conclusion *: TPVB with catether and SAP block sufficient to facilitate surgery with a large area in breast tumor and provide the continuous analgesics postoperative.*

Keywords*: Breast cancer, TPVB, Catether, SAP, Wide exicison*

INTRODUCTION

Breast cancer is a malignancy originating from breast tissue, both from the ductal epithelium and its lobules. Abnormal breast cells will continue to grow and eventually these cells will become a lump (tumor). If it is not immediately treated properly or is not controlled, it will cause metastases to other parts of the body and cause death. The most common locations for breast metastases are lung and pleura (15-20%), bone (20-60%), liver (5-15%), and brain (5-10%) and local/regional metastases (20-40%). %). Data from the International Agency for Research on Cancer 2015 showed that breast tumors were the highest type of cancer in women with an incidence of 38 per 100,000 women. In Indonesia,

ADDUCTOR CANAL BLOCK FOR TOTAL KNEE ARTHROPLASTY PROCEDURE

ADDUCTOR CANAL BLOCK FOR TOTAL KNEE ARTHROPLASTY PROCEDURE

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[**]*Departement of Anesthesiology and Intensive Care, dr.Hasan Sadikin General Hospital, Bandung*

ABSTRACT

Background *: Total knee arthroplasty (TKA) is more common due to the aging population, where adequate pain management is required to achieve early mobilization. Adductor canal block (ACB) provides adequate analgesia, minimally affecting quadriceps weakness.*
Case Illustration*: We report a case series of 4 patients aged fifty-two to fifty-six years old who underwent total knee arthroplasty due to severe osteoarthritis. All patients received ultrasound-guided abductor canal using bupivacaine.*
Discussion: *The use of ultrasonography dramatically increases the speed and precision of peripheral nerve blocks making the technique effective and efficient. In patients with multiple comorbidities, using ACB while improving acute pain management also decreases the use of analgesic drugs such as steroids, opioids or non-steroidal anti-inflammatory drugs. Pain-free, the patient requires a shorter period of hospitalization and allows for early mobilization. A new approach in TKA used, though, was a minimally invasive technique with smaller incisions but still requires a different ACB approach. There was one case in which the result was not satisfying. We conclude that the difference in procedural approach caused it.*
Conclusion: *Adductor Canal Block provides adequate analgesia in patients who underwent TKA, leading to early mobilization, early recovery and higher patient satisfaction.*

Keywords : *Adductor Canal Block, Regional Anesthesia, Total Knee Arthroplasty.*

INTRODUCTION

High-quality perioperative care is required in modern surgery; hence treatment plan is required to achieve the best care.[1] Orthopedic surgery especially requires a new post-op quality: a better postoperative range of motion (ROM) after knee surgery and unmanaged postoperative pain may hinder better recovery and rehabilitation.[1,2] The perioperative plan is based on surgical technique, implant selection, postoperative physiotherapy, and postoperative pain management. Studies show early recovery and mobilization reduces knee stiffness and thigh muscular hypotrophy.[1,3]

Perioperative pain management is usually managed with opioids, NSAIDs or neuraxial anesthesia, which all have downfall such as dizziness, hypotension, reduced ability to mobilize, and allergies hence peripheral nerve block is an alternative.[2,3] Though femoral block has been more popular, recently, a new technique is known as the adductor canal block (ACB) due to its reduced effect on quadriceps muscle strength[4,5] and allows quick mobilization by the patient. ACB also reduces morphine consumption in some

BASIC LIFE SUPPORT IN TRACHEOSTOMY PATIENT WITH DIFFICULT INTUBATION DUE TO SUSPECTED NASOPHARYNGEAL CARCINOMA

BASIC LIFE SUPPORT IN TRACHEOSTOMY PATIENT WITH DIFFICULTINTUBATION DUE TO SUSPECTED NASOPHARYNGEAL CARCINOMA

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ABSTRACT

Background *: Nasopharyngeal carcinoma is a Intraoperative cardiac arrest is a sudden and rare condition happen during an operation that can lead the patient died during the operation. It is known that currently, there are not many case reports discussing the treatment used during and after intraoperative cardiac arrest especially in tracheostomy operation patient.*

Case Illustration *: a 60-year-old patient came with a pain in the neck area and difficulty breathing since 2 weeks ago and suspected with Nasopharyngeal carcinoma. On examination of the neck, a tumor with a size of 5x4x3 cm was found with a bumpy surface, hard consistency, mobile, and no tenderness. The patientwas planned to conduct a tracheostomy to release the airway obstruction. During the operation, the patient's hemodynamics slowly decreased until cardiac arrest occurred. Thus, an advance cardiac life support are performed and tracheostomy are continued until finish. After patient circulation returned and the tracheostomy finished, the patient are treated in intensive care unit.*

Conclusion *: In patients with obstructed airways and difficult to intubate, the patient needs to be given afollow-up airway intervention to prevent respiratory failure. Then in treating cases of cardiac arrest patients with obstruction in the airways, we need to obtain a fast advanced airway. This aims to obtain optimal results of cardiac resuscitation and perfussion to the tissues.*

Keywords*: basic life support; tracheostomy; difficultintubation; intraoperative cardiac arrest; nasopharyngealcarcinoma*

INTRODUCTION

This case highlights a particular group of patients which will be very difficult to intubate. The patient has a condition of Nasopharyngeal carcinoma (NPC), it is a malignancy arising from the epithelium of the nasopharynx(1). Patients can have variable presentations depending on the area of involvement of the disease. The most common site of origin is the lateral aspect of the nasopharynx and the fossa of Rosenmuller. This cancer can progressto obstruct oropharyngeal airway(1).

To help the patient breath again, a tracheostomy is needed. Tracheostomy isa direct opening in the anterior trachea communicating with a stoma on the surface of the neck[2]. The indications to do a tracheostomy are weaning from mechanical ventilation, protection from aspiration, upper airway obstruction, chronic ventilatory insufficiency, elective

NOREPINEPHRINE ADMINISTRATION USING PERIPHERAL ACCESS DURING CRANIOTOMY TUMOR RESECTION SURGERY : A REPORT OF TWO CASES

NOREPINEPHRINE ADMINISTRATION USING PERIPHERAL ACCESS DURING CRANIOTOMY TUMOR RESECTION SURGERY : A REPORT OF TWO CASES

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ABSTRACT

***Background** : Intraoperative hypotension can occur due to the effects of anaesthesia or intraoperative events. One of the treatments is by administering vasopressor agents such as norepinephrine. In the condition when CVC is not inserted, there is a dilemma to start vasopressors via peripheral access because of complications that may happen. This paper aims to report two cases of peripheral administration of norepinephrine during craniotomy for tumour resection surgery.*

***Case Illustration** : We report two cases of craniotomy with peripheral administration of norepinephrine. CVC was not inserted in these cases, and we successfully administered norepinephrine via peripheral access without complication. We followed some criteria: norepinephrine was given via large intravenous access (18-gauge IV cannula), in a short period (less than 12 hours), in more dilute concentration (0.02 mg/ml), and with regular monitoring for complications.*

***Conclusion** : Norepinephrine can be safely used via peripheral access and can be a good option for maintaining ideal blood pressure during neurosurgery. Regular monitoring intra- and postoperative is needed to prevent complications from the procedure.*

***Keywords**: Norepinephrine, peripheral venous access, craniotomy*

INTRODUCTION

Maintaining blood pressure within the normal range is necessary to ensure adequate cerebral perfusion pressure during craniotomy surgery.[(1)] Intraoperative hypotension can occur due to the effects of anaesthesia or intraoperative events such as bleeding or surgical manipulation. One of the treatments is by administering vasopressor agents such as norepinephrine[(2)]. Traditionally, vasopressors are administered via a central venous catheter (CVC) to avoid phlebitis or tissue injury. There is a dilemma in starting vasopressors via peripheral access in the condition where CVC is not inserted. Here we present two cases of vasopressor use via peripheral intravenous access during craniotomy for tumour resection.

CASE ILLUSTRATION

The first patient was 56 years-old female, ASA 2, with a right temporal tumour meningioma. After induction, we inserted two 18-gauge IV accesses in hand and feet. We also inserted an arterial line for continuous blood pressure monitoring. Anaesthesia was maintained by sevoflurane 0,8-1,1 age-adjusted MAC and remifentanil infusion. To

ANESTHESIA IN PATIENTS UNDERGOING ICH EVACUATION CRANIOTOMY SURGERY WITH COPD COMORBID

ANESTHESIA IN PATIENTS UNDERGOING ICH EVACUATION CRANIOTOMY SURGERY WITH COPD COMORBID

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[**]*Department of Anesthesiology and Intensive Care, Sanglah Hospital*

ABSTRACT

Background *: Chronic Obstructive Pulmonary Disease (COPD) is one of the most common causes of death in the world. In 1990 the number of deaths from COPD in the world was 2.2 million and is expected to continue increase. Good perioperative management can reduce the incidence of postoperative pulmonary complications. COPD is also closely associated with a variety of cardiovascular and neurovascular diseases, both acute and chronic, where studies have shown that COPD is more common in patients with stroke, and the coexistence of the two leads to a poorer prognosis.* ***Case Illustration*** *: Induction of anesthesia in patients with severe COPD is a challenge in itself because of the risk of hemodynamic instability due to air trapping and increased positive end-expiratory pressure.*

Conclusion *: Targeted controlled mechanical ventilation of COPD patients is very important in the management of COPD patients. This can be done by applying the following strategies: (1) Decrease ventilation per minute by decreasing tidal volume, respiratory rate, and ventilation requirements by accepting hypercapnia and mild acidosis, (2) Patients with pulmonary obstruction need 3 seconds or more to recover. Complete expiration and ventilator settings that do not facilitate expiration will exacerbate dynamic hyperinflation. (3) reduce expiratory resistance with the use of bronchodilators, corticosteroids, heliox, low-resistance and valved ventilator tubes.*

Keywords*: COPD, stroke, hyperinflation, ventilation, hypercapnia*

INTRODUCTION

Intracerebral hemorrhagic (ICH) occurs in about 20 out of 100,000 people every year. A typical hemorrhagic stroke is ten years younger than an ischemic stroke patient. Most hemorrhages in ICH are subcortical and more than 50% of spontaneous ICH hemorrhages occur in the basal ganglia. Patients with the highest risk of ICH are male, elderly, African, American, and Asian. Changes in cerebral blood vessels with age cause the greater the risk of intracerebral hemorrhage in geriatric[(1)].

Chronic Obstructive Pulmonary Disease (COPD) is the most common cause of death in the world. In 1990 the number of deaths from COPD in the world was 2.2 million and is expected to continue to increase. With the increasing number of COPD patients and increasing life expectancy, surgical procedures in COPD patients are also increasing, both with minimally invasive procedures and major surgeries. Good perioperative management can reduce the incidence of postoperative pulmonary complications[(2)].

The prevalence of stroke among patients with or without COPD was evaluated in

NEUROANESTHESIA MANAGEMENT FOR CEREBELLOPONTIN ANGLE MENINGIOMA REMOVAL

NEUROANESTHESIA MANAGEMENT FOR CEREBELLOPONTIN ANGLE MENINGIOMA REMOVAL

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ABSTRACT

***Background**: Cerebellopontine angle (CPA) meningioma is one of extra-axial tumor originating from arachnoid membrane cells. This tumor can cause cranial nerve impairment based on the tumor anatomical location. The three main symptoms that often occur are headache, altered mental status, and paralysis. Surgical resection remains the main strategy to cope with this disease at present. Not only surgical intervention, but also adequate neuroanesthesia intervention and monitoring is needed to ensure better outcome for patient.*

***Case Illustration**: A 47-years old female with chief complaint of headache, vomiting, diplopia, and tingling sensation with loss of sensation in right face area in the past 7 month found a tumor on her right brain on Magnetic Resonance Imaging (MRI) and decided to undergo Ventriculoperitoneal Shunt (VP Shunt) operation after diagnosed with Hydrocephalus non communicant. After the VP Shunt insertion, symptom is lessened but headache still occasionally appear and tingling sensation with loss of sensation in right face area is worsen. After undergoing another MRI 6 month prior the last surgery, there is a solid mass in CPA and planned to undergo craniotomy tumor removal.*

***Conclusion**: General anesthesia was used, and basic neuroanesthesia such as ABCDE principle is used to prevent secondary brain injury by prevent hypoxia, hypotension, electrolyte imbalance, hyperthermia, increased intracranial pressure, and brain ischemia. Scalp block is used to decreased opioid usage. After operation, patient is admitted in ICU for further management prevent increase of ICP, hypoxia, and imbalance electrolyte and discarged on 2nd day to ward.*

***Keywords**: anesthesia; brain; cerebellopontine; injury; neuroanesthesia*

INTRODUCTION

Cerebellopontine angle (CPA) meningiomas account for 6-15% of the tumors in the cerebellopontine angle region.(1) Meningioma is an extra-axial tumor originating from arachnoid membrane cells, and often occur in multiple location where arachnoid cells are present between brain, bone, ventricles, and spine.[2] Meningioma incident in women is higher than in men, with a 2:1 ratio.(2) They are benign tumors characterized by multiple pairs of cranial nerves impairment (V-XI).(3) The clinical symptoms that arise generally depend on the anatomical location involved. The three main symptoms that often occur are headache, altered mental status, and paralysis. Surgical resection remains the main strategy to cope with this disease at present. Surgical results are perfect after total excision. Postoperatively, sometimes non-surgical treatment needed in the prevention of recurrence such as radiation therapy.(4)

PEDIATRIC REGIONAL EPIDURAL AS POSTOPERATIVE MULTIMODAL ANALGESIA IN CONGENITAL HEART DISEASE TOF-PA/MAPCAS: A CASE REPORT

PEDIATRIC REGIONAL EPIDURAL AS POSTOPERATIVE MULTIMODAL ANALGESIA IN CONGENITAL HEART DISEASE TOF-PA/MAPCAS: A CASE REPORT

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ABSTRACT

Background : *Pediatric postoperative pain is treated suboptimally in many centers. Optimal pain management in children requires multimodal approach. Wherever possible, Regional analgesia should be employed with a combination of systemic agents rather than relying on a single drug(1). Tetralogy of Fallot with Pulmonary Atresia (ToF-PA) is a complex congenital heart defect at the extreme end of spectrum of ToF with no antregrade flow into the pulmonary arteries. The incidence rate for this case is <1% per 1.000 birth(2). The anesthetic plan was done by maintaining normal range of heart rate and rhythm with euvolemia and multimodal analgesia. Thus the epidural analgesia play an important role in anesthetic management of congental heartd disease as it can provide a good analgesia with minimal or no hemodynamic changes.*

Case Illustration : *A 2 year old girl weighing 8 kg posted for surgical correction Posterior Sagital Anorectoplasty (PSARP) of congenital anorectal malformation. The child was diagnosed at 14 days of life with Tetralogy of Fallot with Pulmonary Atresia (PA) and Ventricular Septal Defect (VSD) with bidirectional shunt, and Major Aortic Pulmonary Collateral Arteries (MAPCAs) with cyanosis (daily saturation range 75-82% in room air) which is getting worse with crying or moderate activity. The surgery done in prone position and regional epidural analgesia was done postoperatively combine with paracetamol intravenously as post operative multimodal analgesia.*

Conclusion : *Epidural analgesia should be considered in pediatric surgical case especially thoracoabdominal surgery with moderate to severe pain and congenital cardiac disease whose hemodynamic should be maintained in normal range. . In our case we found that a continuous epidural analgesia post operatively was a successful approach in manajemen anesthesia of ToF-PA/MAPCAs patient that can be evaluated in shortened length of stay in intensive care unit and better outcome postoperatively.*

Keywords : *Pediatric, epidural, Tetralogy of Fallot, MAPCAs, PSARP.*

INTRODUCTION

Pediatric postoperative pain is treated suboptimally in many centers, it is up to 50% of children experienced intense pain in first 7 days postoperatively. Optimal pain management in children requires multimodal approach. Wherever possible, Regional analgesia should be employed with a combination of systemic agents rather than relying on a single drug(1) Tetralogy of Fallot with Pulmonary Atresia (ToF-PA) is a complex

ANESTHESIA IN EMERGENCY PDA STENTING WITH PULMONARY ARTERI ATRESIA

ANESTHESIA IN EMERGENCY PDA STENTING WITH PULMONARY ARTERI ATRESIA

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ABSTRACT

***Background**: Pulmonary atresia with an intact ventricular septum is a condition that is characterized by a complete obstruction to right ventricular outflow. It is essential in fetal life as a communicating shunt to send blood from right ventricle bypassing the underdeveloped lungs. Ductal patency may be lifesaving in few cyanotic congenital heart diseases to maintain pulmonary blood flow.*

***Case Illustration**: A 1-day-old, 3405 g child who presented to casualty with bluish discoloration. The child had central cyanosis, tachypnea with saturation 80% on 1 L/minute nasal cannula and desaturate to 40%. Transthoracic echocardiography (TTE) revealed intact intraventricular septum with pulmonary atresia and patent ductus arteriosus (PDA). The patient scheduled to an emergency PDA stenting. Anesthesia induction was performed with 50% oxygen in air, fentanyl 3 µg/kg, ketamine 2 mg/kg, atracurium 0.5 mg/kg and maintained with sevoflurane. The procedure was performed about 20 to 30 minutes. After procedure, oxygen saturation was increased up to 60%. The child was successfully extubated after 24 hours in the Neonatal Intensive Care Unit (NICU) with saturation 92%.*

***Conclusion**: PDA stenting is a less invasive palliative procedure for ductal dependent complex congenital heart diseases. Anesthesiologist's role were maintaining arterial saturation and hemodynamics, securing vascular assess, maintaining temperature. It needs thorough understanding of underlying physiology.*

***Keywords**: Pulmonary atresia, PDA stenting, Anesthesia, Emergency*

INTRODUCTION

Pulmonary Atresia with intact ventricular septum (PAIVS) is a rare congenital defect that consists of atresia of the pulmonary valve resulting in an absent connection between the right ventricular outflow tract and the pulmonary arteries, and an intact ventricular septum that allows no connection between the right and left ventricles. It is to be considered that PAIVS is a distinct defect compared to pulmonary atresia in ventricular septal defect and Ebstein anomaly. It is different that PAIVS features developmental abnormalities of the right ventricle with the tricuspid valve that is upstream of the pulmonary outflow.[1]

The pulmonary arteries in PAIVS are small, but the architecture and branching are normal. While in pulmonary atresia in ventricular septal defect, the right ventricle is normally-formed and the relation between the tricuspid valve and the pulmonary artery is

GENERAL ANESTHESIA IN 23 YO WOMAN G1P0A0 PREGNANT 36 WEEKS 4 DAYS UNDERGOING SCTP CITO ON INDICATION OF BRAIN TUMOR

GENERAL ANESTHESIA IN 23 YO WOMAN G1P0A0 PREGNANT 36 WEEKS 4 DAYS UNDERGOING SCTP CITO ON INDICATION OF BRAIN TUMOR

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ABSTRACT

Background : Anesthesia management in pregnant women with brain tumors is challenging due to physiological changes that can affect the anesthetic administered. In addition, it is necessary to consider drugs and anesthetic techniques to prevent fetal defects in pregnant women. The presence of a brain tumor in pregnancy will affect the timing of delivery, the type and technique of anesthesia to be used.

Case Illustration: We reported patient with G1P0A0 23 years pregnant 36 weeks 4 days complaining of nausea, vomiting and headache since 6 months ago. The general condition of the patient appeared to be moderately ill. From the examination of the cranial nerves, it was found that the peripheral type VII left paresis (+), right NII and NV dysfunction (+), right NIII paresis (+), superior and inferior motor examination revealed decreased motion +/+, motor strength 55555 /44444 55555/44444. The results of the CT scan showed a mass/SOL picture, accompanied by an increase in ICP at this time. The diagnosis is based on anamnesis, physical examination and investigations. The patient had SCTP Cito performed with general anesthesia and preparation for rapid sequence intubation (RSI) Propofol 120 mg, Fentanyl 100 mcg and Rocuronium 40 mg for drugs. The patient was followed up at the HCU for four days.

Conclusion : General anesthesia can be an option for pregnant women with brain tumors because it provides many advantages including hemodynamic stability so that it can reduce the increase in ICP.

Keywords: CPA, General Anesthesia, Pregnant, SC

INTRODUCTION

The incidence of brain tumors in women is 15 per 100,000 with varying outcomes. The cause of brain tumors is not known. Approximately 75% of intracranial tumors are experienced in women of productive age and during pregnancy. Tumor enlargement during pregnancy is teens associated with fluid retention, accumulation of hormonal changes, swelling of blood vessels, and the presence of growth hormone receptors that cause the progression of symptoms during pregnancy.[1]

The cerebellopontine angle (CPA) is a triangular area in the posterior fossa bounded by the temporal bone, cerebellum and pons. There is an abnormal mass in this area oftentimes, which is referred to a CPA tumor, mostly occurs in adults and comprises 5-10% of all intracranial tumors.[2]

ANESTHESIA MANAGEMENT IN PEDIATRIC PATIENT WITH PULMONARY HYPERTENSION UNDERGOING TOOTH EXTRACTION SURGERY : A CASE REPORT

ANESTHESIA MANAGEMENT IN PEDIATRIC PATIENT WITH PULMONARY HYPERTENSION UNDERGOING TOOTH EXTRACTION SURGERY : A CASE REPORT

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ABSTRACT

Background : *Pulmonary hypertension (PH) is a major reason for elevated perioperative morbidity and mortality, even in noncardiac surgical procedures. Patients should be thoroughly evaluated and prepared for the intervention. Multidiscipline approach were needed. Perioperative prevention and management of PH crisis, gentle induction, pain control are among anesthetic consideration. Intravenous pulmonary vasodilators could be administered cautiously.*

Case Illustration : *The patient was a 4 year old girl, with Ventricle Septal Defect (VSD) and Perimembranous (PMO) VSD Bidirectional shunt, normal flow high resistance PH underwent mutiple radix extraction. Cardiac catheterization found Large muscular VSD (diameter 8.2mm) and Large PMO VSD (diameter 9.5mm). PH was reactive to O2 test. Intraoperative monitoring were as ASA standard and invasive blood pressure monitor. Before general endotracheal anesthesia, milrinon was administered. Sevoflurane was used as induction agent while maintenance using sevoflurane, 50% oxygen in air and fentanyl as the analgesia. The duration of surgery was about 1.5 hours. Patient was hemodinamically stable, and extubated at the end of surgery. Patient was transported to PICU postoperative for further monitoring.*

Conclusion : *Pulmonary hypertension is a major reason for elevated perioperative morbidity and mortality, even in noncardiac surgical procedures. Anesthetic agents were chosen based on their properties upon effect on pulmonary and systemic vasculature.*

Keywords : Pediatric, Pulmonary hypertension, Multidiscipline, Anesthesia*Keywords:* *anesthesia*; brain; cerebellopontine; injury; neuroanesthesia

INTRODUCTION

Pulmonary hypertension (PH) is a major reason for elevated perioperative morbidity and mortality, even in noncardiac surgical procedures. Patients should be thoroughly evaluated and prepared for the intervention and allowed plenty of time for consideration. Multidiscipline approach were needed. After selecting each of the suitable individual anesthetic and surgical procedures, intraoperative management should focus on avoiding all circumstances that could contribute to exacerbating pulmonary hypertension. Perioperative prevention and management of PH crisis, gentle induction, pain control are

COMPARISON BETWEEN POSTERIOR AND LATERAL TAP BLOCK FOR POST OPERATIVE PAIN IN SECTIO CAESAREA

COMPARISON BETWEEN POSTERIOR AND LATERAL TAP BLOCK FOR POST OPERATIVE PAIN IN SECTIO CAESAREA

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ABSTRACT

Background *: Patients with obsetry and gynecology surgery with a transverse incision in the lower abdomen will experience severe pain. TAP block is a regional technique that blocks abdominal wall nerve afferents. There are several approaches to perform an ultrasound-guided TAP block such as the lateral and posterior block. The objective of this study to determine the difference between posterior and lateral TAP block on the pain degree in post sectio caesarea patients at RSUP Dr. Kariadi.*

Methods*: The study was a quasi-experimental with post-test design which samples were selected from patients who underwent sectio caesarea at Dr. Kariadi Hospital Semarang from April-May 2021. The sampling method used was consecutive sampling with inclusion and exclusion criteria and the study. The samples were then divided into 2 groups of lateral and posterior TAP. Resting NRS was recorded at 1, 6, 12, 18, 24, 36 and 48 hours post operative while active NRS was recorded at 12, 24, 48 hours post operative.*

Result *: There were 32 samples included with the same baseline in this study. The resting NRS difference at the first hour had a p value of 0.166, while 6, 12, 18, 24, 36 and 48 hours post-operative had a p value of <0.05. Active NRS at 12, 24 and 48 hours showed a p value of <0.05. There were 5 samples (31.3%) that needed analgesic rescue (p=0.022).*

Conclusion*: There is a significant difference in resting NRS value, where the posterior block TAP is superior at 6, 12, 18, 24, 36 and 48 hours post operative. There is also a significant difference in active NRS and in the consumption of analgesics resque, where the posterior block TAP group is superior. There were no significant difference of side effects caused by TAP block in both groups.*

Keywords*: anesthesia; analgesics; TAP block; Lateral and Posterior NRS*

INTRODUCTION

Post cesarean section pain is usually described as moderate to severe by most patients and failure to adequately manage pain can affect mother-infant bonding, infant care and breastfeeding. It may even put the patient at risk for thromboembolism due to pain immobility. Pain management is not only important for the mother but should also be

COMBINATION OF GENERAL ANESTHESIA AND PERIBULBAR BLOCK IN STRABISMUS SURGERY : A CASE REPORT

COMBINATION OF GENERAL ANESTHESIA AND PERIBULBAR BLOCK IN STRABISMUS SURGERY : A CASE REPORT

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ABSTRACT

Background : Strabismus is a common ophthalmic problem that usually requires surgical correction. General anesthesia is mandatory for most cases, however concomitant local anesthetics administration is preferable. Peribulbar block is one of the most common choices for anesthesia as it can generally achieve akinesia with the favorable safety profile. It is a selective nerve block technique to inhibit afferent input from nerves that innervate the eye through the injection outside the muscle cone.

Case Illustration : A female aged 20 years was consulted for elective strabismus surgery. Past medical history and laboratory examination were within normal limit. Patient underwent standard ASA monitoring. The patient was induced with propofol 100 mg and preemptive analgesic fentanyl 100 mcg, followed by Laryngeal Mask Airway (LMA) i-gel insertion. Anesthesia was maintained by mechanical ventilation with 50% oxygen in air and sevoflurane. In supine position, peribulbar block was performed on the eye to be operated. The needle was advanced slowly through the skin at the junction of the lateral and middle thirds of the inferior orbital rim underneath the globe. After negative aspiration, 2 ml of Lidocaine 2% and 3 ml of bupivacaine hyperbaric 0.5% was injected, with a 23 gauge, disposable needle on a 5 ml syringe. This was followed by a gentle digital massage of the eyeball to facilitate diffusion of the local anesthetic mixture for 5 minutes. The operation lasts for 90 minutes with stable vital sign. Post-operative pain assessment showed NRS 0-1 and no postoperative nausea and vomiting (PONV) reported throughout 24 hours.

Conclusion : Peribulbar block had a great benefit in strabismus surgery when combined with general anesthesia. It reduced the incidence of oculocardiac reflex (OCR), less PONV and improved postoperative analgesia.

Keywords: *Strabismus Surgery, Peribulbar Block, General Anesthesia*

INTRODUCTION

Strabismus is commonly performed surgical procedure by ophtalmologists. Strabismus results from an imbalance in extraocular muscle function. Adults have approximately a 4% lifetime risk of developing strabismus. Repeated surgery is common as each operation has 60%-80% chance of successful correction. Strabismus surgery is normally carried out under general anesthesia. Laryngeal Mask Airway (LMA) is used frequently and has been shown to be associated with a lower incidence of complications

COST EFFECTIVENESS OF REGIONAL ANESTHESIA FOR BREAST CANCER SURGERY

COST EFFECTIVENESS OF REGIONAL ANESTHESIA FOR BREAST CANCER SURGERY

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ABSTRACT

Background *: Globally, breast cancer is the most frequently diagnosed cancer and the leading cause of cancer death in women.[1] Mastectomy is one option for the surgical treatment of breast cancer. Mastectomy is usually performed under general anesthesia. Regional anesthesia could be an alternative. Common regional anesthesia for mastectomy are pectoral nerve block (Pecs) types 1 and II, thoracic paravertebral blocks (TPVB), and serratus plane (SP) block. Patients who received injection local anesthesia in such blocks had less acute postoperative pain in 72 h after surgery. Implementing regional anesthesia for the patients will eliminate the risks and complications of general anesthesia. Here we would describe the cost needed between general anesthesia and regional anesthesia.*

Case Illustration *: We present 5 cases of breast cancer cases undergo mastectomy under general anesthesia and regional anesthesia. Case 1 using general anesthesia with intubation with sevoflurane for maintenance during anesthesia, with total cost Rp 703.704. Case 2 using intubation general anesthesia with continuous opioid. The total cost was Rp 984.521. Case 3 using TPVB, Pecs 1, SP block, and dexmedetomidine sedation with total cost Rp 687.985. Case 4 using TPVB, Pecs I and II, and propofol sedation with total cost Rp 558.812. Case 5 using TPVB, Pecs 1, and SP block, and dexmedetomidine sedation. This patient have resolved local anesthesia toxicity. This surgery proceeded with regional anesthesia. Total cost of this case was Rp 806.893. All regional anesthesia was performed with USG-guided.*

Conclusion *: Total cost of general anesthesia in this case series report was Rp 703.704 – Rp 984.521, while regional anesthesia was Rp 558.812 – Rp 806.893. In contrast to regional anesthesia, the cost is spent in the first hour of anesthesia.*

Keywords*: cost effectiveness, regional anesthesia, mastectomy, TPVB, Pecs I, Pecs II, SP block, breast cancer*

INTRODUCTION

According to statistics from the International Agency for Research on Cancer (IARC), there are approximately 44 million people living with cancer worldwide.[2] Globally, breast cancer is the most frequently diagnosed cancer and the leading cause of cancer death in women.[1] Mastectomy (complete removal of the tissue of the breast) is one option for the surgical treatment of breast cancer and the only surgical option for breast cancer risk reduction.[3] Types of mastectomy used in modern breast surgery include

REGIONAL CAUDAL ANAESTHESIA COMBINE WITH SEDATION IN A DUCHENNE MUSCULAR DYSTROPHY (DMD) PATIENT FOR URETHROPLASTY IN CHILDREN

REGIONAL CAUDAL ANAESTHESIA COMBINE WITH SEDATION IN A DUCHENNE MUSCULAR DYSTROPHY (DMD) PATIENT FOR URETHROPLASTY IN CHILDREN

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ABSTRACT

Background *: Duchenne muscular dystrophy (DMD) is an x-linked recessive disorder caused by a mutation in the dystrophin gene located on chromosome Xp21. Children with neuromuscular diseases may often present for anesthesia either as a part of a diagnostic procedure or surgery relating to their underlying disorder or for incidental surgery. DMD is usually a challenge for the anaesthesiologist, with poor cardiac function, a high risk of developing rhabdomyolysis, and the probable life-threatening complications of general anaesthesia. To avoid possible morbidity associated with general anaesthesia, we applied a Caudal block combine sedation.*

Case Illustration *: A children 6 years old with diagnosis of Duchenne muscular dystrophy (DMD) who will be planning a urethroplasty. Patient is given sedation before the caudal anesthetic procedure was performed. Subsequently, caudal anesthesia was performed by injection with 0.5 % concentration of bupivacaine. The patient was continuously sedated with propofol during the duration of the operation. Duration of operation lasted for 2 hour, and the patient was given oxygenation at 2 lpm by nasal cannula, clinical and hemodynamics including body temperature during operation was stable.*

Conclusion *: Patients develop respiratory distress and cardiomyopathy in the advanced stage of the disease. The patients have associated difficult airway anatomy in the form of macroglossia and limited mobility of the mandible and cervical spine. These patients are at an increased risk of developing extreme hyperthermia (malignant hyperthermia), rhabdomyolysis, and hyperkalemic cardiac arrest when exposed to halogenated inhalational anesthetics and depolarizing muscle relaxants.*

Keywords*: Duchenne muscular dystrophy, Pediatric, Caudal anesthesia, Sedation*

INTRODUCTION

Duchenne muscular dystrophy (DMD) most commonly affects the paediatric age group about 1 in 3500 live male births.[1,2] DMD is caused by mutations in the dystrophin gene located on chromosome Xp21 resulting in an abnormal form or very low concentration of dystrophin. DMD patients develop progressive neuromuscular weakness, skeletal deformities, and cardiopulmonary complications, with cardiac or respiratory failure being the primary cause of death during the second and third decades of life.[1] The anaesthetic considerations for patients with DMD are therefore their age (and potential natural history of the disease), avoiding the triggers of anaesthetic- induced rhabdomyolysis

OPIOID INDUCED HYPERALGESIA IN PATIENT WITH URETHRAL TRAUMA

OPIOID INDUCED HYPERALGESIA IN PATIENT WITH URETHRAL TRAUMA

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ABSTRACT

Background : Opioid induced hyperalgesia (OIH) is a state of nociceptive sensitization *resulting from exposure to opioids. This condition is characterized by a paradoxical response when patients receive opioids for pain therapy, patients may become more sensitive to painful stimuli. Usually come from high dose administration, or in decreasing dose setting. There are a lot of mechanism that has been proposed to explain this OIH phenomenon. Several of them are the involvement of glutamic system, spinal dynorphins, descending facilitation, genetic factors, and decreasing of reuptake of nociceptive substances.*

***Case Illustration** : A 56-year-old man who was hospitalized due to ST elevation myocardial infarct (STEMI) tried to remove his urine catheter by force. He then experienced gross hematuria and urethral pain on NRS up to 8 and diagnosed with urethral trauma, the patient was receiving continuous intravenous fentanyl titrated doses ranging from 30 mcg per hour to*
200 mcg per hour however patient's pain did not decrease yet the patient complained the pain was intensified. Pain was successfully improved after stopping fentanyl administration, administering ketamine and midazolam, then rotating opioids to morphine, the pain score was improved to NRS 1.

***Conclusion** : In clinical setting, it may be hard to differentiate opioid induced hyperalgesia with opioid tolerance, withdrawal, or addiction, yet OIH is a not a risk that is routinely described to patient who is receiving opioid therapy. Diagnosis of OIH can be time spending, and on the other hand untreated pain can also worsen the patient's condition, eventually affect their overall quality of life and mental health.*

***Keywords**: pain, opioid, hyperalgesia*

INTRODUCTION

Opioid induced hyperalgesia (OIH) is a state of nociceptive sensitization resulting from exposure to opioids. This condition is characterized by a paradoxical response when patients receive opioids for pain therapy, patients may become more sensitive to painful stimuli.[1] still much debated, some researchers doubt the evidence for OIH in acute opioid use because of the similarity of symptoms to withdrawal symptoms. However, Evidence of OIH in human has been systematically reviewed by C.Higgins et al.[3] This case report is intended to discuss the pathophysiology, diagnostic, and treatment of OIH.

Several observational, cross-sectional, and controlled trials have identified the

ACUTE DECOMPENSATED COR-PULMONALE: A HOLISTIC APPROACH IN THE INTENSIVE CARE UNIT

ACUTE DECOMPENSATED COR- PULMONALE: A HOLISTIC APPROACH IN THE INTENSIVE CARE UNIT

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ABSTRACT

Background *: Cor pulmonale is defined as the presence of pulmonary arterial hypertension caused by structural pulmonary disease which causes right ventricular (RV) dysfunction. Pulmonary hypertension in cor pulmonale patient occurs when the mean pulmonary artery pressure (MPAP) at rest is >20 mmHg. Increased pulmonary vascular resistance (PVR) in cor pulmonale triggered by chronic alveolar hypoxia, causes pulmonary vasoconstriction and remodeling of the pulmonary vascular bed structure in the long run. Uncompensated increased PVR which leads to a decompensated condition is usually caused by exacerbation of the chronic lung disease. Decompensated cor pulmonale is an irreversible terminal condition with high mortality rate, hence it is important to manage the patient holistically from the resuscitation room to their discharge from intensive care.*

Case Illustration *: A 53 years old woman, was referred to our hospital, intubated, with a history of uncontrolled bronchiectasis, presented with generalized edema, severe shortness of breath and desaturation, hypotension, followed by gradual loss of consciousness. Laboratory findings showed severe uncompensated respiratory acidosis, hypercarbia, elevated infection markers, elevated serum creatinine, hypoalbuminemia, hyperkalemia, and hyperglycemia. Transthoracic echocardiography result showed RV dilatation, pulmonary hypertension (mPAP 36.25; Pulmonary capillary wedge pressure/PCWP 11.2), and RV dysfunction (Tricuspid annular plane systolic excursion/TAPSE 1.6cm). She was treated with targeted ventilatory management to prevent hypercarbia and hypoxia, was given early tracheostomy, antibiotic, PDE 5 inhibitor, inodilator agent, anticoagulant, bronchodilator, diuretic, proper nutrition, and early pulmonary rehabilitation. Her symptoms improved and she was discharged from the intensive care unit with low oxygen therapy*

Conclusion *: Managing decompensated cor pulmonal holistically includes the combination of elimination of the precipitating factors, regulation of pulmonary hypertension, accommodation of proper nutritional support and breathing rehabilitation. We presented a case which combination of these efforts have a successful outcome to treat a case of decompensated cor pulmonale.*

Keywords*: Cor pulmonale, Pulmonary hypertension, Right Heart Failure, Cardiogenic shock.*

INTRODUCTION

Cor pulmonale is defined as the presence of pulmonary arterial hypertension caused by structural pulmonary disease and impaired pulmonary function, which

COMBINE PECTORAL NERVE AND SERRATUS ANTERIOR PLANE BLOCK FOR BREAST SURGERY : A CASE REPORT

COMBINE PECTORAL NERVE AND SERRATUS ANTERIOR PLANE BLOCK FOR BREAST SURGERY : A CASE REPORT

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ABSTRACT

Background *: PEC I and Serratus anterior plane blocks have been described as a regional anaesthesia techniques to provide intra- and post-operative pain relief for breast surgery. Serratus anterior plane (SAP) Pectoral nerve block is a relatively new technique, with fewer complications than others regional anesthesia block. It is also a new procedure that is relatively easier to perform and safer, compared with other modalities.The pectoral nerves block is widely used as adjunct to general anaesthesia for breast surgery.*

Case Illustration *: A 45-year-old woman (163 cm, 65 kg) was diagnosed with breast carcinoma and was scheduled to undergo biopsy breast surgery under Pectoralis Block and SAP block. The procedure was guided by ultrasonography (USG). The patient was positioned in the right lateral decubitus position. Aseptic and antiseptic techniques were done around the area of mid-axillary line. Bupivacaine 10 ml and lidocaine 2% 10 ml were injected on the fascia between the serratus anterior muscle and latissimus dorsi muscle The patient was sedated using 1% propofol 2 mg/kg with titration, The duration of surgery was 90 min. Intravenous ketorolac 30 mg/8 h was given as postoperative analgesia. The patient was monitored for 2 h postoperatively in the recovery room and followed by 24 h postoperatively in the medical ward. The patient did not report any nausea/vomiting . NRS score was 1-2 and no breakthrough pain during the monitoring period.*

Conclusion *: PEC I and SAP block are safe as the sole anethetic in biopsy tumor breast surgery. PEC I and SAP block are simple technique with no contraindication and may provide better analgesia and lesser side effects.*

Keywords*: Pectoral Nerve Block, Serratus Anterior Plane Block, Breast Surgery*

INTRODUCTION

Breast cancer is one of the most common malignancies among women and often requires surgery for the removal of the primary tumour. Approximately among 40% of the women undergoing breast cancer surgery experienced a significant pain in the immediate post-operative period. Altough Breast cancer surgery is the primary therapeutic intervention, it is frequently associated with postoperative pain. Post operative pain causes prolonged hospital stay, increases expenses and consumption of health services resources as well as long-term affection of patient's quality life.

PEC I and Serratus anterior plane blocks have been described as a regional anaesthesia techniques to provide intra and post operative pain relief for breast surgery. Serratus anterior plane (SAP) block is a relatively easier new prosedur to perform and safer

CONTINOUS INTERSCALENE AND SUPRACLAVICULAR BLOCK FOR UPPER LIMB SURGERY A CASE REPORT

CONTINOUS INTERSCALENE AND SUPRACLAVICULAR BLOCK FOR UPPER LIMB SURGERY A CASE REPORT

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ABSTRACT

Background: *General anesthesia (GA) and regional anesthesia (RA) have been used successfully for upper extremity orthopedic procedures. Nerve block anesthesia being cheaper than GA has many advantages such as anesthesia targeted at the operative site, excellent postoperative pain relief, decreased opioid use and reduced recovery time.*
Case Illustration: *We present 2 cases of upper limb surgery: Case 1, a 71-year-old man with a fracture of the right clavicle, was planned for ORIF. Interscalene block was performed under ultrasound guidance with the patient lying in supine position and head turned to the contralateral side, the catheter inserted with subcutaneous tunneling was performed. A 20 ml of 0.5% ropivacaine and 10 ml lidocaine 2% was injected in addition patient was sedated using continuous propofol. Case 2, a 25-year-old woman with a fracture of the right humerus, was planned for ORIF Supraclavicular block was performed under ultrasound guidance in supine position, the needle inserted about 2-3 cm away from the probe with subcutaneous tunneling was performed. We use A 15 ml of 0.5% ropivacaine and 10 ml lidocaine 2% as local anesthesia agent, in addition dexmedetomidine as sedative agent intraoperatively. Postoperatively, there patient was hemodynamically stable without any complication occurred. Postoperative pain was controlled during the hospital care with NRS values of 2-3.*
Conclusion: *The regional anesthesia especially interscalene and supraclavicular brachial plexus block using catheter shows wide potential use in upper limb surgery. Although there are several complication and disadvantages of this block. The used of interscalene and supraclavicular brachial plexus block in upper limb surgery had some advantages such as reduction in use of opioid, patient satisfaction, reduce PONV, no significant airway complication, and hospital treatment cost efficiency. We could consider all the benefits that the technique offered in upper limb surgery particularly in ambulatory setting.*

Keywords: Supraclavicular block, Interscalene block, Upper limb surgery

INTRODUCTION

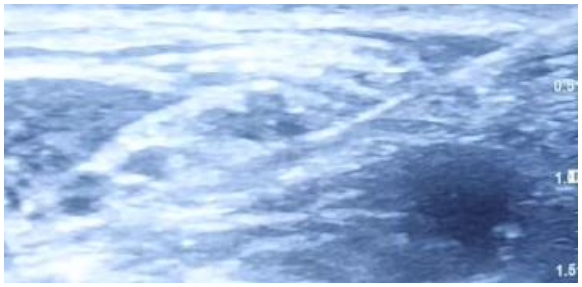
Despite a dramatic increase in orthopedic surgical procedures over the past decades and expectation of continued growth, information on temporal changes in terms of anesthesia techniques in this patient population remains rare. Over the years, the emergence of new medications, technology, and knowledge has revolutionized perioperative

medicine, and as a consequence, interest in how these changes affect anesthetic care and practice has emerged. Among the most defining changes in health care is the move of many procedures from an inpatient to an outpatient setting, with significant impact in anesthesia demands.[1–3]

General anesthesia (GA) and regional anesthesia (RA) have been used successfully for upper extremity orthopedic procedures. Nerve block anesthesia being cheaper than GA has many advantages such as anesthesia targeted at the operative site, excellent postoperative pain relief, decreased opioid use and reduced recovery time. Upper extremity blocks can be performed as sole anesthesia or as a supplemental analgesia to general anesthesia (GA). In this article, we will discuss the continuous use of supraclavicular and interscalene blocks in patients undergoing upper limb surgery.[1,3]

CASE ILLUSTRATION

Case 1, a 71-year-old man with a diagnosis fracture of the right clavicle, was planned for open reduction internal fixation (ORIF). Preoperative evaluation of the patient, we found the patient was classified as ASA 2 physical status with pulmonary contusion, hematothorax and subdural hemorrhage. With an informed consent ultrasound guided continuous supraclavicular block was performed. At the start of procedure, 2 mg of midazolam was given for sedation. Interscalene block (ISB) was performed under ultrasound guidance using a sterile (7-13 MHz) linear transducer with a 18 gauge of epidural needle using the in-plane technique with the patient lying in supine position and head turned to the contralateral side, the catheter inserted with subcutaneous tunneling was performed. A 20 ml of 0.5% ropivacaine and 10 ml lidocaine 2% was deposited in the target region. Sensory block was assessed before the surgery started, during surgery the patient was sedated using continuous propofol. The patient was monitored using NIBP, ECG, RR and SpO2 throughout the procedure. The procedure lasted 120 minutes in supine position with good patient comfort and no demand for additional sedation or analgesic. No any clinical signs of respiratory distress were encountered. The patient first experienced pain at 8 hours following surgery which was managed by 10 ml mixed of ropivacaine 0.125% + fentanyl 12.5 mcg every 8 hour via catheter.



Picture 1. Interscalene block

Case 2, a 25-year-old woman with a diagnosis fracture of the right humerus, was planned for ORIF. Preoperative evaluation of the patient, we found the patient was classified as ASA 1. With an informed consent ultrasound guided continuous supraclavicular block was performed. At the start of procedure, 1 mg of midazolam and 25 mcg fentanyl was given for sedation. Supraclavicular block (SCB) was performed under

SUBARACHNOID BLOCK FOR PATIENT WITH TOTAL ATRIOVENTRICULAR BLOCK AND SEVERE PREECLAMPSIA UNDERGOING CAESARIAN SECTION : A CASE REPORT

SUBARACHNOID BLOCK FOR PATIENT WITH TOTAL ATRIOVENTRICULAR BLOCK AND SEVERE PREECLAMPSIA UNDERGOING CAESARIAN SECTION : A CASE REPORT

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ABSTRACT

Background : Atrioventricular block rarely occurs during pregnancy. Severe preeclampsia is an aggravating factor that affects the patient's prognosis. Hemodynamic stability and rhytm control in cases like this are challenging. Management of antihypertensive drugs and pacemakers can be given with careful consideration.

Case Illustration : A 28-year-old woman, G2P1A0, at 37 week-gestation complained of weakness. The patient was diagnosed with a total atrioventricular block with severe preeclampsia during pregnancy. Cesarean section and IUD insertion were performed using subarachnoid block regional anesthesia. After the surgical procedure was completed, the patient was admitted to the high-care unit for further monitoring.

Conclusion : Perioperative management of pregnant women with arrhythmia and complicated by severe preeclampsia requires an understanding of the pathophysiology and appropriate anasthetic technic to achieve optimal results.

Keywords: arrhythmia, preeclampsia, subarachnoid block, total atrioventricular block.

INTRODUCTION

Pregnant women with arrhythmia (or heart disease in general) are associated with a high incidence of morbidity and mortality, as seen in cases with total atrioventricular block (TAVB) or complete heart block. The risk of such eventful matter dramatically increased especially with the occurrence of a complication such as severe preeclampsia.[1] The aforementioned substantially induce a heavy physiological stress on cardiovascular system that affected maternal and fetal wellbeings.[2] Heart be divided into two groups, namely Congenital Complete Heart block (CCHB) and Acquired Complete Heart Block (ACHB). Total AV block of pregnancy is associated with connective tissue disease of the cardiac conduction system. Total atrioventricular block (TAVB) in pregnancy is a rare syndrome and tends to go through pregnancy and childbirth without complications if managed carefully. Thorough prior evaluation of cardiovascular system function is necessary to determine whether pacemaker placement (either temporary or permanent) is 5 warranted. Pacemaker placement condition predisposing pregnancy alone are responsible for one-third maternal death. The predisposed mechanism underlying the burden is related to hypoperfusion of vital organs.[3] Preeclampsia can worsen the antecedently mentioned heart problems during pregnancy, laying more hassle to the once lousy cardiovascular system's capability to manage adequate perfusion .[4,5]

MONITORED ANESTHESIA CARE MANAGEMENT IN CHILDREN WITH AIRWAY DIFFICULTY

MONITORED ANESTHESIA CARE MANAGEMENT IN CHILDREN WITH AIRWAY DIFFICULTY

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ABSTRACT

***Background** : The demand of procedures performed on children outside the operating room setting often exceeds the capacity of anesthesia services. The number of children requiring sedation outside the traditional operating room is rapidly increasing because of the modernization of medical thecnology that simplify a medical procedures.[1]*

***Case Illustration** : We discuss the management of Monitored Anesthesia Care (MAC) in a pediatric patient aged 3 years old with Suspected Lymphoma in oral cavity planned for biopsy and lumbar puncture for definitive diagnosis. Chief complaints rapidly growing lump in the lower gum for approximately 1 month, the patient's history of normal birth history, comorbidities are denied. Since the lump appears, the patient has difficulty eating and breathing, Patient only tolerate liquid intake. Before admision the patient was weak, feverish and cranky. The main problem in this patient is the patient come with airway difficulty with LEMONS 4/6, MOANS 3/5, SHORTS 2/5, RODS 2/4.*

Preoperative phase, the patient was prepared to fully fast for 2 hours before the procedure, Patient was sedated using ketamine at a dose of 0.6 mg/kgBB with monitoring of NIBP, Oxygen saturation, ECG with oxygen supplementation of Nasal Cannula 2 lpm. During anesthesia patient in a sedated condition with RASS score of -4, patient can move lightly with pain stimulation, head tilted right position, sometimes patient oral cavity is suctioned. In The duration of the action was 20 minutes during which there was no occurrence of desaturation or agitation.

***Conclusion** : In an institutions where sedation is provided outside the operating room, the anesthesiologist should have the responsibility to define safe practice standards because anesthesiologists, although possess unique qualifications to provide such services, remain with limited availability because of their commitments to the operating room, ICU or other area. Considerations are given to facilities, back up of emergencies, equipment, education, informed consent, documentation. There should be a real collaboration between the department of anesthesiology and other concerned departments in order to enhance safety, efficiency and reliability during the provision of sedation.*

***Keywords**: Monitored Anesthesia Care, Pediatric, Airway Difficulty, Controlled sedation, Management*

A PROSPECTIVE STUDY ON THE DEGREE OF HYPONATREMIA IN TRANSURETHRAL RESECTION OF PROSTATE

A PROSPECTIVE STUDY ON THE DEGREE OF HYPONATREMIA IN TRANSURETHRAL RESECTION OF PROSTATE

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ABSTRACT

Background *: Intake of systemic hypotonic fluids during irrigation performed during Transurethral Resection of the Prostate (TURP) can cause changes in electrolytes including sodium, potassium and calcium. This study aims to assess the level change of sodium during Transurethral Resection of Prostate (TURP).*

Case Illustration *: 50 males aged 54 to 86 years, submitted for TURP,enrolled in the study with the ASA classification from grades I to IV. Glycine 1.5% was used with the irrigation level kept at 60 cm. One day before surgery and one hour after surgery, serum sodium levels were measured for all patients Spinal anesthesia was given to 31 patients, while 19 patients were treated under general anesthesia, with an average duration of 72.42 ± 24.77 minutes. The mean size of the resected prostate was 54.82 ± 25.04g. 58% of patients had mild hyponatremia, 4% had medium level of hyponatremia with asymptomatic, and none of the patients had severe hyponatremia or TURP syndrome. Systemic diseases such as hypertension, DM, or IHD were found not significant.*

Conclusion *: TURP is associated with a high incidence of mild hyponatremia without symptoms. The duration of the operation is one of the most important factors.*

Keywords*: Serum sodium; benign prostatic hyperplasia; transurethral resection of prostate; hyponatremia; TURP*

INTRODUCTION

From the last 60 years, Benign Prostatic Hyperplasia (BPH) remains a disease common in men. This disease is characterized by urinary incontinence, frequent urination, altered urination, urinary urgency, weak and nocturnal urine stream. BPH is characterized by an increase in prostate size (more than 20 g) with symptoms of irritation and/or obstructiveness. The surgical treatment of BPH involves transurethral resection of the prostate (TURP). It is a neurological intervention, performed under spinal or general anesthesia using an endoscope. It is recommended as the treatment of choice in 95% of cases of simple prostatectomy, because it is safer and more effective than open prostatectomy.

Post surgical intervention, bladder rinsing and irrigation is carried out using a large triple lumen catheter. The various irrigation solutions used are glycine, sorbitol, distilled water, and mannitol. Apart from irrigation, the TURP procedure also involves widening of the mucosal surface, bleeding; and cleaning up the tissue pieces of the resected prostate to properly visualize the area.

A serious complication observed with the TURP procedure is with retrieval systemic hypotonic irrigation fluids either directly in the vascular system via prostatic venous plexus or indirectly into the retroperitoneal space or perivesical. This could be due

ILIOINGUINAL-ILIOHYPOGASTRIC NERVE BLOCK IN PATIENT UNDERGOING RIGHT ORCHIDOPEXY: A CASE REPORT

ILIOINGUINAL-ILIOHYPOGASTRIC NERVE BLOCK IN PATIENT UNDERGOING RIGHT ORCHIDOPEXY: A CASE REPORT

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ABSTRACT

***Background** : Peripheral nerve blocks are gaining a lot of popularity in the pediatric population because of its relatively safer profile and easier, more accurate administration using the ultrasound. Ilioinguinal- iliohyogastric block nerve block provides adequate analgesia intraoperatively and post operatively for the pediatric population undergoing inguinal surgery.*

***Case Illustration** : We performed an ilioinguinal- iliohypogastric nerve block on a 9 year old boy undergoing rght orchidopexy using the ultrasound instead of the commonly performed caudal anesthesia with 0.25% Bupivacine and Dexamethasone 5mg with a total volume of 10 ml. The patient did not need an additional dose of fentanyl other than the one used for induction and had a postoperative pain score VAS 2 two hours postoperatively and VAS 1 24 hours postoperatively. Patient was extubated fully awake and had no signs of emergence delirium and no signs of PONV. Patient was planned to be discharged 1 day post operative.*

***Conclusion** : Hence Ilioinguinal/iliohypogastric nerve block block can be used as a pain management modality in perioperative inguinal surgery in the pediatric population.*

***Keywords**: Ilioinguonal-iliohypogastric nerve block, nerve block, pediatric, inguinal surgery, pain management.*

INTRODUCTION

Peripheral nerve blocks are gaining a lot of popularity in the pediatric population not only because of its adequate analgesia properties but also because of its relatively safer profile. In comparison to much traditional neuroaxial techniques such as epidural or caudal anesthesia, incidence of severe complications are lesser and milder in these nerve blocks.[1] Increasing usage of the ultrasound has also increased the efficacy and success rates of these blocks in maintaining intra- operative and postoperative pain management.[2] While minimizing the side effects of excessive opioid usage such as PONV and respiratory depression, peripheral nerve blocks also have an added advantage of postoperative pain management.

Ilioinguinal and iliohypogastric nerve block is another regional anesthesia technique that can be used in surgeries of the inguinal region in the pediatric population.[3] Ultrasound guided ilioinguinal and iliohypogastric nerve block has been shown to be as effective as caudal block for postoperative analgesia in children undergoing unilateral groin surgery, wherein caudal anesthesia is still the mainstay regioanl anesthesia technique used in most hospitals.[4] The iliohypogastric nerve, derived from T12 and L1, provides sensory

PLASMA EXCHANGE IN THE INTENSIVE CARE UNIT FOR GUILLAIN-BARRE SYNDROME : A CASE REPORT

PLASMA EXCHANGE IN THE INTENSIVE CARE UNIT FOR GUILLAIN-BARRE SYNDROME : A CASE REPORT

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ABSTRACT

Background *: Guillain-Barre Syndrome (GBS) often presents as an acute deficits. It presents with progressive, ascending, symmetrical limb weakness and paresthesia with diminished or absent deep tendon reflexes, with or without respiratory and cranial nerves involvement. Both IVIG and TPE (Transfusion Plasma Exchange) are widely accepted as primary treatment options for GBS patients.*

Case Illustration *: A 27-year old presented following 11-days at ICU Gatot Subroto Army Hospital of respiratory infection with fever, dyspnea, ptosis with other paralysis cranial nerve VII, IX, X and peripheral lower limb weakness. A patient has positive cytoalbumin, high value leucocyte, D-Dimer and CRP. Patient also received Five times transfusion plasma exchange (TPE) on 2^{d}, 4th, 6th ,8th ,10th of admission that each time TPE is 2.649 ml. The patient was treated for 10 days in the ICU. The patient has received IVIG therapy for 5 days but cannot be weaning a ventilator. The reason was referred to Gatot Soebroto Army Hospital for Plasmapharesis. In the RSPAD ICU the patient was intubated with GCS E4 Vett M6 with Ptosis and tetraparese, TPE was performed on Day 2,4,6,8,10 treatment.*

Conclusion *: Most patients with GBS present with a history of progressive ascending symmetrical muscle weakness, usually preceded by a respiratory or gastrointestinal infection. The management of GBS is mainly supportive with plasmapheresis or IVIG. This case report a boy 27-year-old with evidence emerged for the effectiveness of immunomodulatory treatment with TPE. These treatments hasten recovery from GBS and TPE can help to weaning ventilator faster.*

Keywords*: Guillain-Barre Syndrome, Plasmapheresis, Transfusion Plasma Exchange*

INTRODUCTION

Guillain-Barre Syndrome (GBS) often presents as an acute deficits. Paralyzing illness triggered by an antecedent infection which provokes an immune response targeting the myelin or axon of a peripheral nerve. It presents with progressive, ascending, symmetrical limb weakness and paresthesia with diminished or absent deep tendon reflexes, with or without respiratory and cranial nerves involvement. It is a rare condition (estimated 1–2 cases per 100,000 person years worldwide. In approximately two-thirds of pa tients with GBS, an episode of acute infection precedes the neurological symptoms by

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