

DESEMBER, 03<sup>rd</sup> - 11<sup>th</sup> 2022

SOLO PARAGON

HOTEL & RESIDENCES



# PROCEEDING

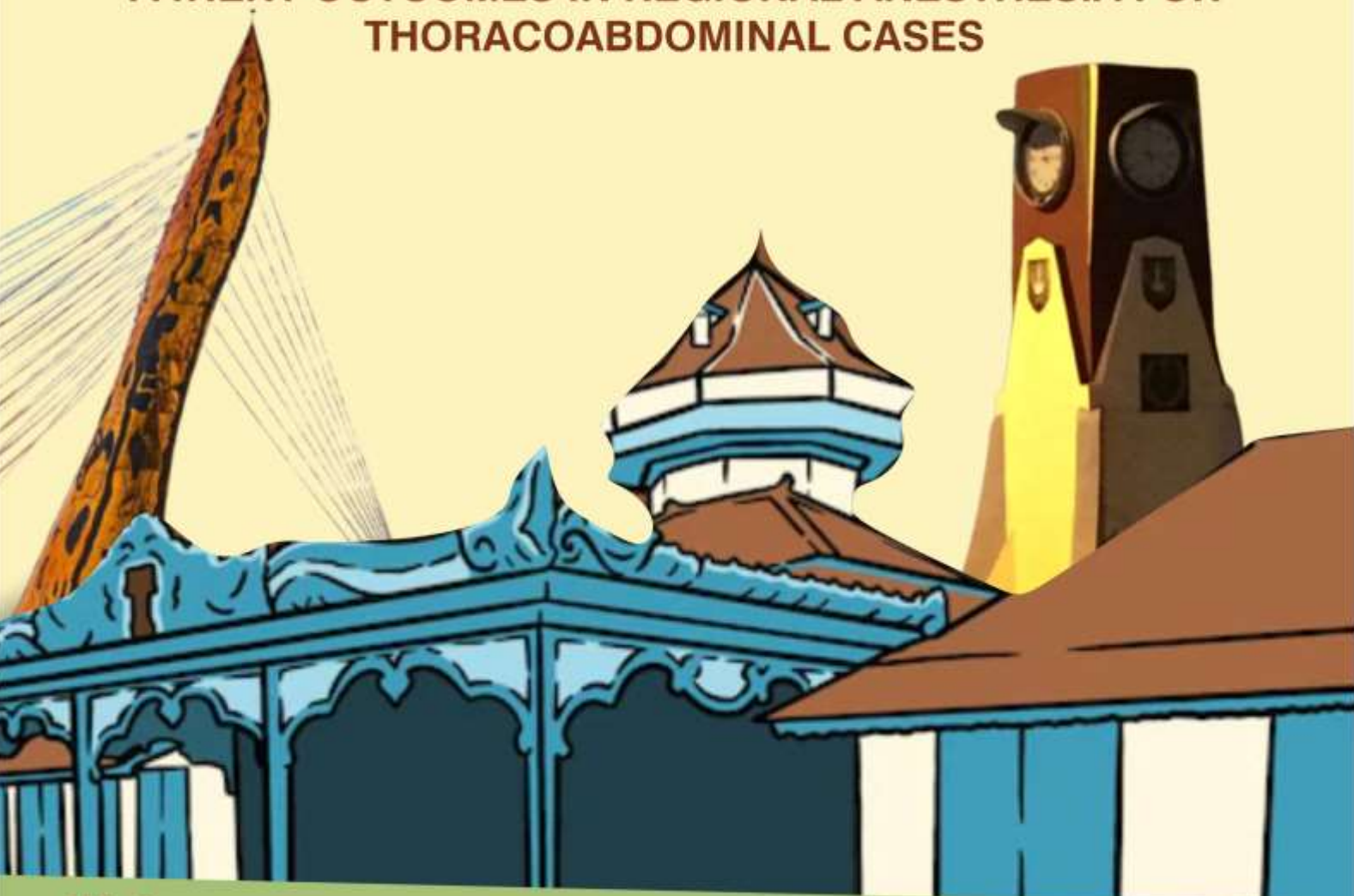
3<sup>rd</sup>



# SOPRANE

SOLO PERIOPERATIVE REGIONAL ANESTHESIA AND PAIN MANAGEMENT

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



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

*"Regional Thoracoabdominal, Intensive Management, and Pain"*

Desember, 03<sup>th</sup> – 11<sup>th</sup> 2022  
SOLO PARAGON  
HOTEL & RESIDENCES



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PROCEEDING BOOK 3<sup>rd</sup> 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

Alhamdulillahirrabbi' 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 *3<sup>rd</sup> 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 anesthesiologi 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 anesthesiologi 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

“Effectiveness Of Intraperitoneal Bupivacaine In General Anesthesia For Laparoscopic Appendectomy” oleh Sarah Lorenza Caverina, Fanda Ayyu Rindiati, F.X. Andhi Haris Respati

“Dexmedetomidine Adjuvant In Awake Intubation As Difficult Airway Management For Submandibular Abscess With Mediastinum Infiltration” oleh Asaduddin Faras, Ardana Tri Arianto, Sigit Prastya Utama

“Local Anesthetic Systemic Toxicity After Thoracal Paravertebral, Pectoralis I, And Serratus Anterior Plane Block In Modified Radical Mastectomy: A Case Report” oleh Gesit Entra Pranuri, Sudadi, Farhan Ali Rachman, Calcarina Retno Wisudarti, Erlangga Prasamya

## *KATA PENGANTAR*

Assalamu'alaikum warahmatullahi wabarakatuh.

Alhamdulillahirrabbi'l'amin, 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 3<sup>rd</sup> *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 menyebarkan 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

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*ANESTHETIC MANAGEMENT FOR URGENT  
CAESAREAN SECTION IN PATIENT WITH  
UNCONTROLLED HYPERTHYROIDISM AND  
SEVERE MITRAL REGURGITATION*



# ANESTHETIC MANAGEMENT FOR URGENT CAESAREAN SECTION IN PATIENT WITH UNCONTROLLED HYPERTHYROIDISM AND SEVERE MITRAL REGURGITATION

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## ABSTRACT

**Background :** The prevalence of hyperthyroidism in pregnancy approximately 0.05% to 3% and mostly caused by Graves' Disease (GD). The prevalence of Hyperthyroid Heart Disease (HHD) in pregnancy is 3.87%. Uncontrolled hyperthyroidism during pregnancy can increase maternal and fetal mortality. We report a case of a pregnant woman with uncontrolled hyperthyroidism and severe mitral regurgitation that underwent cesarean section with spinal anesthesia for delivery.

**Case Illustration :** A 33 years-old patient G4P1A2 visited the Obstetric-Gynecology outpatient clinic at our hospital at 23 weeks of gestation (WoG) due to uncontrolled hyperthyroidism caused by GD that diagnosed 3 years ago and shortness of breath. The echocardiography test obtained severe mitral regurgitation and left atrial dilatation with 58% LVEF. At 32 WoG, the patient came to the ED due to shortness of breath, chest pain, and nausea. The patient was given a nasal cannula at 3 liters/minute, extra furosemide 20 mg, and fetal lung maturation with dexamethasone injection. The patient was prepared for termination by cesarean section. Spinal anesthesia was performed in a sitting position using a 27 G spinal needle. Inserted at L 3-4, using a low dose of heavy bupivacaine 0.5% 7.5 mg combined with 25 g fentanyl and 0.1 mg morphine intrathecally. C-section was successfully performed and hemodynamics during surgery was stable, resulting the delivery of a preterm baby who weighed 1.9 kg at birth and the baby was transferred to the NICU for further treatment.

**Conclusion :** Spinal anesthesia with low dose bupivacaine combined with opioids for cesarean section was revealed maternal and neonate safe.

**Keywords:** Spinal Anesthesia, Pregnancy, Hyperthyroidism, Mitral Regurgitation

*ANESTHESIA MANAGEMENT FOR  
POSTERIOR FOSSA SURGERY WITH  
PONTINE HIGH GRADE GLIOMA WITH  
PRONE POSITION ON CHILDREN*



# **ANESTHESIA MANAGEMENT FOR POSTERIOR FOSSA SURGERY WITH PONTINE HIGH GRADE GLIOMA WITH PRONE POSITION ON CHILDREN**

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## **ABSTRACT**

**Background** : Primary brain tumors in children vary but almost 50% originate below the infratentorium. Anesthesia management of patients undergoing surgery in the posterior fossa area presents its own challenges for an anesthesiologist, this is because in the posterior fossa there is a very vital structure, namely the brain stem.

**Case Illustration** : the patient is an 11year old male with complaints of headache accompanied by weakness of the right limb, double vision and seizures since five months before surgery. On physical and neurological examination, it was found that the patient had decreased consciousness with GCS E3V2M4, accompanied by tetraparesis but more severe weakness on the right side, left N. VI paresis, left N. VII parese infranuclear. Magnetic resonance imaging (MRI) showed a solid infratentorial solid mass in the vermis that extends to the pons, left midbrain, and medulla oblongata (left side dominant). The patient was anesthetized with GA-OTT Non Kinking in the prone position. Anesthesia was maintained with combination of continuous propofol and dexmedetomidine, fentanyl and roconorium were given intermittently. Osmotic diuretic was given to reduce ICP before duramater opening and provided optimal view on operative field. Patient was successfully extubated 12 hours following the surgery in ICU. The results of anatomical pathology showed a tumor with a high-grade glioma morphology.

**Conclusion** : Anesthesia management in posterior fossa surgery has several pre-operative problems such as brainstem dysfunction, patient positioning, intraoperative neurophysiological monitoring, and the risk of air embolism in the veins (VAE).

**Keyword** : primary brain tumors, posterior fossa, anesthesia, prone, air embolism

*SERRATUS ANTERIOR PLANE BLOCK AS  
A SUCCESSFUL SINGLE ANESTHESIA  
TECHNIQUE FOR THORACOSCOPY BIOPSY  
SURGERY*



# SERRATUS ANTERIOR PLANE BLOCK AS A SUCCESSFUL SINGLE ANESTHESIA TECHNIQUE FOR THORACOSCOPY BIOPSY SURGERY

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## ABSTRACT

**Background** : Thoracic surgery is one of the most common surgeries that cause severe postoperative pain. Inadequate pain management results in longer hospital stays and recovery periods, as well as psychological changes, quality of life, and patient satisfaction. Ultrasound-guided serratus anterior plane block (SAPB) is a promising interfascial plane block that may provide adequate analgesia.

**Case Illustration** : We report three cases of suspected lung cancer who underwent thoracoscopic biopsy and postoperative chest drainage. The patient underwent SAPB with light sedation during the procedure. After surgery, the patient was observed in the intensive care unit. For postoperative pain management, nonsteroidal anti-inflammatory drugs have been used as an adjunct to intraoperative SAPB. Adequate pain control was obtained on a numeric rating scale of 0 to 2 over the 1x24 postoperative period, and opioid analgesics were not used in these patients.

**Conclusion** : SAPB has been successfully used in patients undergoing thoracoscopy biopsy surgery with excellent outcomes in pain control after the surgery, reduction in perioperative opioid administration, and may decrease the postoperative pulmonary complication.

**Keywords**: Serratus anterior plane block, Thoracoscopy, Pain control

***SUPERIOR LARYNGEAL NERVE BLOCK IN  
AMELOBLASTOMA PATIENT WITH  
DIFFICULT INTUBATION AND DIFFICULT  
VENTILATION***





## SUPERIOR LARYNGEAL NERVE BLOCK IN AMELOBLASTOMA PATIENT WITH DIFFICULT INTUBATION AND DIFFICULT VENTILATION

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### ABSTRACT

**Background** : Ameloblastoma is a benign intermittent growing tumor that affects the mandible. It may present a challenge to anesthesiologist as it has the capacity to cause severe disfigurement and alter the airway anatomy which may reflect difficult in ventilation and intubation. Securing a patent airway remains a pivotal point in clinical anesthesia, while failure to establish airway in anesthetized patient can cause severe outcomes in a few minutes. Difficult airway algorithms recommended awake tracheal intubation as the gold standard for patient with at least one variable associated with difficult airway.

**Case Illustration** : The author reports a case of a 62-year-old male patient diagnosed with ameloblastoma tumor. From the physical assesment we found there is possibility of difficult intubation in this patient. His mouth opening was only 1 cm, unable to prognath, mallampati can't be evaluated, thyromental distance 3 cm, and he has history of difficult intubation, makes his total SARI score is 8. To anesthetized this patient, the planning for this patient is to do the awake tracheal intubation using fiberoptic bronchoscopy combined with superior laryngeal block

**Conclusion** : The patient was anesthetized with awake intubation method and superior laryngeal block. There is no complication from the superior laryngeal block procedure. The intubation went smooth. The patient was successfully intubate

**Keywords**: Ameloblastoma, awake intubation, difficult intubation, difficult ventilation, superior laryngeal nerve block

**PERIOPERATIVE MANAGEMENT  
IN LAPARATOMY INSULINOMA CASE**



## PERIOPERATIVE MANAGEMENT IN LAPARATOMY INSULINOMA CASE

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### ABSTRACT

**Background** : Insulinomas are rare tumors that present with recurrent hypoglycaemic episodes. They are often misdiagnosed or diagnosis is often delayed due to their bizarre clinical presentation. The prevalence of this tumor is 1-4 : 1,000,000 people/year, it is more common in women than men with a ratio of 1.4 : 1 . The diagnosis of insulinoma is made based on history (Whipple's Triad), biochemical tests and imaging modalities. Treatment includes medical and surgical management

**Case Illustration** : This case report is about a 26 year old woman with recurrent episodes of hypoglycemia and loss of consciousness since 3 weeks ago. Initial laboratory examination revealed a Blood Glucose level at 40-60 mg/dl and an Elevated C-Peptide of 7.56 ng/ml. Abdomen CT Scan with Contrast showed Hypervascular Lesions in the Corpus Pancreas with a size of 18 mm x

20 mm suspicious for insulinoma. Tumor resection laparotomy is a curative treatment with a high success rate. Intraoperatively, maintenance of optimal glucose levels is a major concern because there may be severe hypoglycemia while treating the tumor, the symptoms of which remain hidden under general anesthesia. Glucose infusion and regular monitoring of plasma glucose to maintain plasma glucose levels in the range of 100-150 mg/dL. The results of the Anatomical and Immunohistochemical Pathology Examination of the Corpus Pancreas surgical preparations were Malignant Tumors, suspicious for insulinoma.

**Conclusion** : These tumors pose a major challenge to the anesthesiologist because of the preoperative neurological damage caused by repeated hypoglycemic episodes and the drastic changes in blood sugar levels during tumor management. Intensive perioperative monitoring of blood sugar levels and multi-disciplinary management can provide better patient outcomes .

**Keywords**: Anesthesia Management, Recurrent Hypoglycemia, Insulinoma, Whipple's Triad, and Tumor Resection Laparotomy

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***ANESTHESIA MANAGEMENT ON PATIENT  
WITH TOTAL AV BLOCK ARRHYTHMIA  
DISORDER UNDERWENT CAESAREAN  
SECTION SURGERY***



# ANESTHESIA MANAGEMENT ON PATIENT WITH TOTAL AV BLOCK ARRHYTHMIA DISORDER UNDERWENT CAESAREAN SECTION SURGERY

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## ABSTRACT

**Background** : Arrhythmia such as bradycardia during pregnancy are rare until symptoms arises or until detected in peripartum period. This condition needs proper preparation and consideration in order to avoid morbidity and mortality.

**Case Illustration** : A 31-year-old woman with a mature gestational age was found to had asymptomatic total atrioventricular (AV) Block. She underwent caesarean section with physical state of American Society of Anesthesiologist (ASA) 3, with problems of pregnancy with severe superimposed preeclampsia, a clinical blood pressure of 150/90 mmHg and proteinuria, then total AV block with a clinical pulse of 50 beats per minute, with echocardiographic findings of left atrium and ventricular dilatation, left ventricular hypertrophy, with an ejection fraction of 68%, normal contractility and mild to moderate mitral valve regurgitation, in addition of electrolyte abnormalities in the form of hypokalemia (with potassium 3.05 mmol/l), hypermagnesemia (3.33 mg/dl), and hypocalcemia (8.1 mg/dl), and hypoalbuminemia (3 g/dl). Regional anesthesia technic with subarachnoid block were commenced. Perioperative management in pregnant woman with total AV Block rhythm require teamwork which includes cardiologist, obstetrician, and anesthesiologist. Evaluation includes routine preanesthesia examination focusing on finding extracardiac causes of total AV Block rhythm. During the surgery, anesthesia technic used is also needed to be considered to reduce hemodynamic alteration effect, and pacemaker insertion intervention to reduce risk of complication to arise must be taken into consideration. Post operative care in intensive care unit is necessary to monitor complication that may arise.

**Conclusion** : Knowledge regarding perioperative management on pregnant women with arrhythmia will results in satisfaction of maternal and neonatal outcome.

**Keywords**: anesthesia, pregnancy, caesarean section, total AV Block, regional anesthesia

*THE MANAGEMENT OF POST OPERATIVE  
CROUP IN POST OPERATED ANORECTAL  
MALFORMATION PATIENT*



## THE MANAGEMENT OF POST OPERATIVE CROUP IN POST OPERATED ANORECTAL MALFORMATION PATIENT

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### ABSTRACT

**Background** : Croup is an emergency respiratory tract condition involving the larynx, trachea, and bronchus. Intubation procedures can cause croup. Post-intubation croup mainly occurs in children aged 1-4 years with relatively low incidence. Risk factors include the long duration of surgical procedures, involvement of the head and neck area, and non-supine position. Subglottic edema can occur after airway instrumentation, especially after repeated attempts at intubation or too large tube sizes. Early diagnosis and immediate airway management are needed to prevent respiratory failure and death.

**Case Illustration** : In this case report, the authors will present a case of a 1 year 8 months old boy with post-operative croup in a patient with posterior sagittal anorectoplasty (PSARP) due to rectorethral anorectal malformation. After about 3 hours postoperatively, the patient looked restless with increased respiratory rate, nostril breathing, stridor, substernal retraction, epigastric retraction, and increased work of breathing. The patient was diagnosed with post-extubation croup based on the clinical findings. The patient was given O<sub>2</sub> 5 liters per minute by the mouthpiece, suction, nebulized Combivent with flexotide every 4 hours, nebulized epinephrine 0.5 mg/kgBW every 4 hours, and dexamethasone 1.5 mg IV three times a day for the post-operative croup management. The clinical condition was improving.

**Conclusion** : In pediatric patients, the possibility of post-extubation croup should be considered in patients presenting with stridor after the intubation procedure. Appropriate management in the form of oxygen supplementation and administration of vasoconstrictors and anti-inflammatory can reduce edema and free the airways. Reintubation can be done if the previous treatment failed.

**Keywords**: anorectal malformation, croup, management, post-extubation, pediatric

***SCALP BLOCK ON MACROCEPHALY WITH  
CONGENITAL HYDROCEPHALUS  
UNDERGOING EXTERNAL VENTRICULAR  
DRAIN***





# SCALP BLOCK ON MACROCEPHALY WITH CONGENITAL HYDROCEPHALUS UNDERGOING EXTERNAL VENTRICULAR DRAIN

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## ABSTRACT

**Background :** Scalp block is a regional anesthesia technique, performed for several years in children undergoing a variety of procedures. Newborns differ from adults in anatomy, physiology and pharmacology. Airway management for infants with hydrocephalus is more difficult. Regional anesthesia was chosen over general anesthesia because minimal exposure to anesthetic drugs, can serve as postoperative pain management, reduce manipulation of the airways, reduce morbidity and mortality in newborns.

**Case Illustration:** One month old baby with macrocephaly due to congenital hydrocephalus was undergoing external ventricular drainage (EVD). Scalp block anesthesia with 0.25% bupivacaine in 3 areas (supraorbital, zygomaticotemporal and greater occipital) was performed with the amount of 1 ml each site. The total dose administered is 7.5 mg. Oxygen at a flow rate of 1 to 2 liters per minute through a nasal cannula was given. Surgery was completed within 30 minutes, with hemodynamic stability. EVD is a emergency procedure with short duration. Newborns have larger head and tongue proportions, shorter anterior and cephalic larynx, with shorter neck and trachea. Newborns with macrocephaly have more difficult airway management. Exposure to general anesthetics can cause side effects on the functioning of immature organs. Blockage of the scalp with local anesthesia has the advantage of maintaining hemodynamic stability, lower risk for manipulation of the airways, easy to perform, minimal side effects, reduced exposure to anesthesia agents and postoperative analgesia. Blocks on these nerves provide effective anesthesia during EVD procedures.

**Conclusion:** Scalp blockade in neonates can be performed in patients undergoing EVD procedures because providing an analgesic effect that can maintain hemodynamic stability. Newborns whose organs are still developing are at risk for side effects from anesthetic drugs, so blocking the scalp with local anesthesia is considered as it has fewer side effects.

**Keywords :** External Ventricular Drain (EVD); neonate; scalp block.

*COMBINED THORACAL PARAVERTEBRAL,  
SERRATUS ANTERIOR PLANE, AND  
PECTORALIS BLOCK IN AXILLARY  
DISSECTION : A CASE REPORT*



# COMBINED THORACAL PARAVERTEBRAL, SERRATUS ANTERIOR PLANE, AND PECTORALIS BLOCK IN AXILLARY DISSECTION : A CASE REPORT

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## ABSTRACT

**Background** : Breast cancer is the most common female cancer worldwide including in both developing and developed countries. **Breast cancer** frequently spreads to the **axillary** lymph nodes. Axillary lymph nodes have long been recognized as a route for breast cancer to spread systemically. Axillary lymph node dissection (ALND) was an essential part of breast cancer treatment. Combined thoracal paravertebral block (PTVB), serratus anterior plane (SAP) block, and pectoralis (PEC) block can be used as an anesthetic technique in axillary dissection.

**Case Illustration** : A 65-year old woman with history of right simple mastectomy underwent axillary dissection with combine thoracal paravertebral, serratus anterior plane, and pectoralis block as a sole anesthesia regiment for this surgery. The patient has agreed to the anesthesia that has been described and from the investigations found that the coagulation function is normal. All blocks are performed USG guided and using each 10 mL 0,5% isobaric bupivacaine and 10 mL 2% lidocaine. Dexmedetomidine 0,2 to 0,5 mcg/kg/hour was used as sedation agent. The block was achieved in 15 minutes. Blocks was satisfactory for the procedure. Hemodynamic was stable during intraoperative phase. The 24 hours postoperative pain score is NRS 1 to 2 and there was no complication after surgery.

**Conclusion** : Combined thoracal paravertebral, serratus anterior, and pectoralis block technique can be used in axillary dissection surgery as a sole anesthetic agent due to adequate block level and duration. Hemodynamic was stable throughout the procedure and no complications occurred during the anesthetic procedure until 24 hours after the operation.

**Keywords:** thoracal paravertebral block; serratus anterior plane block; pectoralis block; axillary dissection; anesthesia

*ULTRASOUND-GUIDED ERECTOR SPINAE  
COMBINED SUBCOSTAL TRANSVERSE  
ABDOMINAL PLANE BLOCK FOR  
GASTROSTOMY : A CASE REPORT*



# ULTRASOUND-GUIDED ERECTOR SPINAE COMBINED SUBCOSTAL TRANSVERSE ABDOMINAL PLANE BLOCK FOR GASTROSTOMY : A CASE REPORT

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## ABSTRACT

**Background** : Patients with thyroid carcinoma with dysphagia often require insertion of a gastrostomy tube as an enteral feeding route. This presents a challenge for an anesthesiologist, because it is often accompanied by airway and ventilation disturbances in the form of narrowing and obstruction due to an enlarged thyroid mass. Regional anesthesia is a promising option for anesthetic management in these patients. Erector Spine Plane Block and Subcostal TAP block are some of the regional anesthetic techniques that have been reported in the management of patients with similar cases.

**Case Illustration** : Our patient came with T4N1bM1 thyroid carcinoma and had undergone palliative care, with complaints of difficulty swallowing liquid food and difficulty breathing due to compression of the tumor mass. Bilateral erector spinae plane block at T7 and T9 levels, combined with Bilateral Subcostal Transverse Abdominal Plane Block was chosen to block the incision area by the surgeon. Sedation with propofol was administered during the surgical procedure. Open gastrostomy tube placement was performed well without any significant hemodynamic or ventilation disturbances. Postoperatively, the patient was hemodynamically stable without any obstruction to the airway or ventilation. Pain observations were carried out for the first 24 hours postoperatively with NRS values of 3-4.

**Conclusion** : The ESP block combined TAP subcostal show wide potential use in upper and lower abdominal minor surgery as sole anesthesia. Although there are several reports of block failure and lack of efficacy of this block, the factors that predispose to this failure such as the optimal volume or concentration of local anesthetic required have not been determined. Larger and in-depth studies are needed to gain new insights into the mechanism of action, side effects, duration of action and dermatome block.

**Keywords:** Erector Spine Plane Block, Transverse Abdominal Plane Subcostal Block, Gastrostomy, Difficult Airway

***ANESTHESIA MANAGEMENT ON ACUTE  
ON CHRONIC LIMB ISCHEMIA PATIENT  
UNDERWENT THROMBECTOMY AND  
ABOVE-KNEE-AMPUTATION***



# ANESTHESIA MANAGEMENT ON ACUTE ON CHRONIC LIMB ISCHEMIA PATIENT UNDERWENT THROMBECTOMY AND ABOVE-KNEE-AMPUTATION

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## ABSTRACT

**Background** : Acute Limb Ischemia (ALI) is a serious condition that might cause sudden decrease of perfusion. Management options are based on the clinical finding, one of which is amputation. In patients with other comorbidities, the anaesthetic management to match the patient's comorbidities becomes a challenge.

**Case Illustration** : A 67-year-old adult with Acute on Chronic limb ischemia fontaine grade IV and chronic limb ischemia was planned for thrombectomy and amputation. The patient had risk factors of grade II hypertension, atrial fibrillation, a history of stroke, and hyperthyroid. The patient had consumed PTU for the last 2 years. Physical examination showed altered consciousness, and vital signs were suggestive of hypertension. Lower left extremity palpation was cold in 1/3 cruris level, with tenderness and loss of sensory function. There was no pulsation in the dorsal artery. Laboratory examination showed leukocytosis, thrombocytopenia, hypoalbuminemia, and low albumin/globulin ratio. In the preoperative preparation, the patient was given PTU, lugol, and propranolol for hyperthyroid's management. During the surgery, heart rate and oxygen saturation was stable.

**Conclusion** : Anaesthetic management in patients with acute on chronic limb ischemia fontaine grade IV with comorbidities of hypertension, hyperthyroid, prior stroke, and atrial fibrillation is challenging. Hyperthyroid correction is essential and an euthyroid state must be ensured before surgery.

**Keywords**: Anaesthesia, Acute limb ischemia, Hyperthyroid, Hypertension

*FOOT SURGERY IN A PATIENT WITH  
CONCURRENT HEMORRHAGIC STROKE  
UNDER FEMOROSCIATIC NERVE BLOCK*





## FOOT SURGERY IN A PATIENT WITH CONCURRENT HEMORRHAGIC STROKE UNDER FEMOROSCIATIC NERVE BLOCK

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### ABSTRACT

**Background** : The Stroke due to intracerebral hemorrhage (ICH) is associated with high morbidity and mortality. Concurrent traumas such as crushing injury to extremities or chest and abdominal trauma may demand surgical intervention. The anesthetic management of extracranial surgery becomes challenging in the context of a concurrent *intracranial lesion*. *Peripheral nerve block for foot surgery in those patients offers some advantages but is scarcely reported.*

**Case Illustration** : A 63-year-old man presented with an open wound on his left foot due to a grinding wheel injury 1 day before admission. The complaint was accompanied by weakness of the right limbs and inability to speak. He had an ischemic stroke 1 year ago. Motor assessment revealed right hemiparesis. Computed Tomography (CT) scan of the head showed an ICH in the left lentiform nucleus area, old infarcts in the right lentiform nucleus region, and multiple infarcts in the subcortical regions of the bilateral parietal lobes. He was diagnosed with an open fracture of the left proximal phalanx of the middle finger, a closed fracture of the left 4th metatarsal, 1st–4th digitorum tendon rupture of the left foot, and recurrent stroke on the contralateral side due to intracerebral hemorrhage of the left carotid system. The patient was classified as ASA III. He underwent tendon repair, open reduction internal fixation (ORIF) with K wire, and debridement. Anesthesia was done with femorosciatic block using bupivacaine 0.4%. The patient's motor function was restored eight hours after the procedure without complications.

**Conclusion** : Peripheral nerve block is a safe and effective anesthetic approach for patients undergoing foot surgery with concurrent hemorrhagic stroke.

**Keywords**: Stroke, Intracerebral hemorrhage (ICH), Peripheral nerve block (PNB), Femorosciatic block

*ANESTHETIC MANAGEMENT ON  
PHEOCHROMACYTOMA PATIENT  
UNDERGOING RIGHT ADRENELECTOMY*



## ANESTHETIC MANAGEMENT ON PHEOCHROMACYTOMA PATIENT UNDERGOING RIGHT ADRENELECTOMY

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### ABSTRACT

**Background** : Surgery in pheochromacytoma patient is a rare and very challenging for anesthesiologist. This disease have clinical symptoms related to increase in catecholamine level gradually or abruptly. This disease can have mild symptom such as hypertension without any other symptom, but can be worsened to Classic Triad which include headache, palpitation and diaphorea.

**Case Illustration** : We report a 23 year old female who was diagnosed with pheochromacytoma underwent right adrenelectomy after an abrupt case of cardiogenic shock and was treated in Cardiac Intensive Care Unit for ten days. Her plasma metanephrin level was elevated and after throughout examination, thrombosis was found in right jugular vein. Surgical resection of pheochromacytoma is a challenge for anesthetic in which unstable hemodinamic with abrupt change can happens during operation and reduction of catecholamine after procedure which needs throughout monitoring. Preoperative care is needed for Pheochromacytoma include metanephrin evaluation, alpha or beta blocker, and correction of fluid deficiency and prevention of catecholamine storms. Invasive Arterial Blood Pressure was monitored before induction to ensure there is no sudden elevation in blood pressure during tracheal intubation. Combined Epidural and General Anesthesia (CEGA) were planned for this patient because it show reductions in postoperative pain, narcotic use, cardiovascular complications and respiratory failure. Epidural Catheher was placed at T8 spine after intubation. Open adrenelectomy in this procedure was lasted for three hours with total bleeding of 250 cc. This patient were admitted in Intensive Care Unit for hemodynamic and glucose monitoring, with epidural analgesia and paracetamol as analgetic agent.

**Conclusion** : Spinal Authors succesfully manage pheochromacytoma patient anesthesia before, during and after procedure in this patient using CEGA without hemodynamic disturbance

**Keywords:** Anesthesia, Adrenelectomy, Pheochromacytoma, Catecholamin, CEGA, Hypertension

*CONTINUOUS QUADRATUS LUMBORUM  
BLOCK AS ANALGESIA IN PEDIATRICS  
PATIENT WHO UNDERGO RENAL  
TRANSPLANTATION SURGERY*



# CONTINUOUS QUADRATUS LUMBORUM BLOCK AS ANALGESIA IN PEDIATRICS PATIENT WHO UNDERGO RENAL TRANSPLANTATION SURGERY

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## ABSTRACT

**Background :** *The Postoperative pain management is important for the successful outcome of any surgery. There are various analgesic options like systemic opioids, neuraxial blocks, non steroidal antiinflammatory drugs (NSAIDs), local infiltration, and so on. However, in renal transplant patients, systemic opioids are used with caution because of altered pharmacodynamics and opioid-related side effects. Neuraxial blocks are not much preferred because of altered coagulation profiles. NSAIDs are avoided as they are nephrotoxic. Local infiltration is not very effective in relieving deep muscle pain. Quadratus lumborum block (QLB) is a new block that can provide effective analgesia following abdominal and retroperitoneal surgeries.*

**Case Illustration :** *A Our patient is a boy, 14 years old with End Stage Renal Disease (ESRD) because of glomerulonephritis and went through renal transplantation surgery. We performed general anesthesia combined with peripheral nerve block with Continuous Ultrasound guided Quadratus Lumborum Anterior Block (QLB) in left lateral decubitus (LLD) position. We used 20 mL Ropivacaine 0.25% as initial dose and continued with Ropivacaine 0.125% 4mL/hour. Patient was maintained with oxygen 50 % in air, sevoflurane and dexmedetomidine continuous 0.3-0.6mcg/kg/hour. The surgery went for 5 hours and the hemodynamic was stable. We used the QLB intraoperatively until the postoperative period. Numeric Rating Scale (NRS) was between 3-4 postoperative. Additional fentanyl 0,5 mcg/kg/hour was given 8 hours later because of the pain in the indwelling catheter that wasn't covered by the QLB.*

**Conclusion :** *Continuous QLB in renal transplantation surgery is an effective intraoperative and postoperative analgesia which comes with several benefits compared with another pain management. The pain was under control and the time for additional opioid analgesic was longer enough along the postoperative period.*

**Keywords:** *Pediatric, Post Operative Pain, Quadratus Lumborum Block, Renal Transplantation Surgery*

*SUPRACLAVICULAR BLOCK IN LOW  
EJECTION FRACTION AND CHRONIC  
KIDNEY DISEASE PATIENT UNDERGOING  
ARTERIOVENOUS GRAFT SURGERY*



## **SUPRACLAVICULAR BLOCK IN LOW EJECTION FRACTION AND CHRONIC KIDNEY DISEASE PATIENT UNDERGOING ARTERIOVENOUS GRAFT SURGERY**

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### **ABSTRACT**

**Background :** *The increasing number of chronic diseases leads to increase incidence of renal failure. Patients with chronic kidney disease may present with multiple comorbidities and perioperative issues. They may undergo various operation including routine procedures such as AV shunt or AV graft creation. Regional anesthesia is an option and may have several advantages over general anesthesia in certain patients. Peripheral nerve block offers little effect on hemodynamics and provide sufficient pain control post-operatively.*

**Case Illustration :** *We report a 55-year-old female scheduled for AV graft procedure, with the comorbidities of chronic kidney disease, hypertension, diabetes, chronic heart failure with low ejection fraction. Regional anesthesia with supraclavicular block was chosen to facilitate the procedure. Initially, ultrasound was used as guidance but due to patient's fat distribution visualization of the sonographic landmark was not clearly achieved. The block was then performed guided by landmark and nerve stimulator with local anesthetic Bupivacaine isobaric 0.5% 20ml. Complete sensory and motoric block was achieved. The procedure was conducted smoothly, and postoperatively the NRS was 0-1. There was no complication found.*

**Conclusion :** *Supraclavicular block provides sufficient block coverage for AV graft procedure. They provide stable hemodynamic for patient with reduced cardiorespiratory reserve throughout the procedure and pain control postoperatively.*

**Keywords:** *Supraclavicular block, low EF, chronic kidney disease, AV graft*

*IN RURAL AREA, HOW ANESTHESIA  
MANAGEMENT OF LIVER RESECTION  
PROCEDURES IN PEDIATRIC  
HEPATOBLASTOMA? : A CASE REPORT*





## **IN RURAL AREA, HOW ANESTHESIA MANAGEMENT OF LIVER RESECTION PROCEDURES IN PEDIATRIC HEPATOBLASTOMA? : A CASE REPORT**

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### **ABSTRACT**

**Background :** *Hepatoblastoma is the third most commonly diagnosed intra-abdominal solid tumor and malignant liver tumor in children. One of the treatment modalities for hepatoblastoma is surgery. Major hepatic resection using the principle of Low Central Venous Pressure (LCVP) is controversial, some journal show LVCP is not effective to control bleeding in the hepatic portal vein before and during parenchymal transection, some journal show its effective method. The LCVP principle is designed to maintain CVP at a low level during the critical stages of liver resection, helping to reduce blood loss. The management of anesthesia by lowering CVP to less than 5 mmHg is an effective technique to liver resection procedure in paediatric hepatoblastoma.*

**Case Illustration :** *We report two cases of pediatric hepatoblastoma patients at RSUD dr. Abdul Aziz Singkawang with LCVP principle to achieve low central venous pressure. We also compared in these cases the operating time, blood loss, the need for blood transfusion during liver resection and outcome. Two cases of pediatric liver resection of hepatoblastoma using the LCVP principle showed minimal blood loss (<20% EBV), the need for blood transfusion wasn't massive during surgery, and the operation time was about 4 – 4.5 hours.*

**Conclusion :** *In rural areas with all its limitations, management anesthesia for pediatric hepatoblastoma surgery was very challenging itself for the anesthesiologist. Two case of paediatric hepatoblastoma surgery can be successfully performed using the LVCP principle in order to reduce intraoperative bleeding and reduce surgical time, and also better outcome.*

**Keywords:** *Hepatoblastoma, Liver, Resection, LCVP, Anesthesia, Management.*

*ANESTHESIA MANAGEMENT IN OBESITY  
HYPOVENTILATION SYNDROME PATIENT  
UNDERGOING LAPAROSCOPY SURGERY*



## ANESTHESIA MANAGEMENT IN OBESITY HYPOVENTILATION SYNDROME PATIENT UNDERGOING LAPAROSCOPY SURGERY

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### ABSTRACT

**Background :** *The Obesity is a disease with high morbidity and even mortality. Obesity hypoventilation syndrome (OHS) can be defined with obesity, daytime hypoventilation, and sleep-disordered breathing without neuromuscular, mechanical, or metabolic causes. To reduce complications, it is important to consider the physiological changes of obese patients. The effects of laparoscopic procedures on obese patients need to be known to prepare for perioperative management.*

**Case Illustration :** *A 47-year-old woman with a diagnosis of OHS, underwent a laparoscopic bariatric procedure. Intubation with ramp position using video laryngoscopy. After intubation, ETCO<sub>2</sub> 40 mmHg, with mechanical ventilation mode using Volume Control with setting Tidal Volume 350mL, respiratory rate 30 beats per minute PEEP 5, oxygen fraction 70%. 1 hour after CO<sub>2</sub> insufflation into the abdominal cavity, ETCO<sub>2</sub> has a gradual increase to 50 mmHg. Then manual hyperventilation was performed to increase the respiratory rate. The patient was positioned in a more reverse Trendelenburg position and the PEEP was increased, then manual hyperventilation was performed to increase the respiratory rate. ETCO<sub>2</sub> improved with manual hyperventilation to increase the respiratory rate, then after ETCO<sub>2</sub> decreased, the patient's breathing was again controlled using a ventilator with a tidal volume setting of 350 mL, respiratory rate 30 beats per minute, PEEP 7, fraction oxygen 75%. At the end of the operation, a prostigmin and sulfas atropine was given and extubation was performed. After surgery, the patient was treated in a semi-intensive room with a head up position of 30-40° with simple mask of 6 liters per minute.*

**Conclusion :** *The successful anesthetic management of obese patients requires many considerations from various perspectives. The administration of PEEP and the reverse Trendelenburg position provides hemodynamic advantages for patients with morbid obesity. Starting from pre, during and post surgery must be prepared properly so that complications do not occur in patients.*

**Keywords:** *Anesthesia; Laparoscopy; Obesity; Obesity Hypoventilation Syndrome; Perioperative*

***ANESTHESIA MANAGEMENT IN  
PATIENTS G1P0A0  
GRAVIDA 33-34 WEEKS WITH  
ECLAMPSIA***



## ANESTHESIA MANAGEMENT IN PATIENTS G1P0A0 GRAVIDA 33-34 WEEKS WITH ECLAMPSIA

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### ABSTRACT

**Background** : Eclampsia refers to the occurrence of tonic-clonic seizures or coma in women with preeclampsia. Despite advances in disease detection and management, preeclampsia and eclampsia remain the leading causes of maternal morbidity and mortality.

**Case Illustration** : A woman aged 20 years, gravida 1 parity 0 abortion 0, 33-34 weeks pregnant, single live fetus. The patient came with complaints of headache, nausea, vomiting and blurred vision since 7 hours of SMRS, the patient had a seizure for 3 minutes in the hospital. Based on physical examination, hypertension was found with blood pressure of 159/107 mmHg. In addition, from the supporting examination, proteinuria was +4, the patient was diagnosed with eclampsia, then the pregnancy was terminated through an emergency cesarean section under general anesthesia.

**Conclusion** : Through proper anesthetic management, diagnosis and risk reduction in eclampsia patients can reduce morbidity and mortality of pregnant women.

**Keywords**: General Anesthesia; Anticonvulsants; Eclampsia; Anesthetic Management; Preeclampsia

*ANESTHESIA IN CESAREAN SECTION  
WITH METASTASIZED OVARIAN CANCER :  
A MULTIDISCIPLINARY APPROACH*



## ANESTHESIA IN CESAREAN SECTION WITH METASTASIZED OVARIAN CANCER : A MULTIDISCIPLINARY APPROACH

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### ABSTRACT

**Background :** Ovarian cancer is the second most common gynecologic cancer diagnosed during pregnancy, complicating 1 in 15,000 to 1 in 32,000 pregnancies. The effect of the disease on both the mother and the fetus should be borne in mind, as well as the fact that pregnancy itself can affect diagnostic and therapeutic procedures. Management of this case require involvement of multidisciplinary team

**Case Illustration :** The patient is 28 years old female, primigravida 33 weeks gestational age, IUGR, with suspected ovarian cancer. Patient came with chief complains of resting dyspnea caused by rapidly distension of belly. Abdomen was distended, with massive ascites, and bilateral pitting edema at low extremity. Patient was anemic with Haemoglobin level 8.5 g/dl. Ultrasound examination found Estimated Fetal Weight 1.380 gram, ascites and inhomogen, multilokuler, solid, with multiple septae adnexal mass in left ovary. There was suspected mass in anterolateral hepatic segment. Clinical conference was held to discuss for diagnostic procedure, timing of termination and surgery, perioperative preparation and optimalization. Patient was decided to undergo termination of pregnancy by caesarean section and removal of tumor after fetal lung maturation is done at 34 weeks gestational age. A serohemoragic ascites as much as 3500cc was evacuated with metastasized carcinoma cell detected. The anesthesia is performed under regional epidural anesthesia. Bilateral ureter catheter stent and cystoscopy was done prior to caesarean section. Panhisterektomi, omentektomi and appedectomy, adhesiolisis, resection of peritoneal mass was done under general anesthesia. Intraoperative consultation to digestive surgeon was made due to laceration of bowel, tumor mass in mesorectum and anterior segment of liver.

**Conclusion :** Cesarean section with metastasized ovarian cancer needs a multidisciplinary approach, due to the complexity of diagnosis and treatment.

**Keywords:** Caesaran Section, Ovarian Cancer, Cancer In Pregnancy, Multidisciplinary, Anesthesia

***CESAREAN SECTION IN EPIDURAL  
ANESTHESIA  
ON A PATIENT WITH INTRACRANIAL  
TUMOR***





## CESAREAN SECTION IN EPIDURAL ANESTHESIA ON A PATIENT WITH INTRACRANIAL TUMOR

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### ABSTRACT

**Background** : Parturients with intracranial lesions are often assumed to have increased intracranial pressure, even in the absence of clinical and radiographic signs. The risk of herniation after an inadvertent dural puncture is frequently cited as a contraindication to neuraxial anesthesia<sup>1</sup>. The optimal anesthetic technique for labor analgesia and cesarean section is controversial in patients with intracranial tumors. Anesthesia in patients with intracranial tumors may be considered using neuraxial anesthesia if there are no signs of increased intracranial pressure<sup>2</sup>.

**Case Illustration** : An 36-year-old woman G5P4A0 37 weeks pregnant with a diagnosis of Meningioma dd glioblastoma planned for elective cesarean section + sterilization. The patient was diagnosed with meningioma since 5 months ago due to complaints of progressive dizziness. The patient received dexamethasone therapy. Dexamethasone treatment has been discontinued for 4 months because the symptoms have disappeared. Currently there are no symptoms of nausea, vomiting, dizziness, blurred vision, weakness of limbs. Anesthesia was carried out with continuous epidural anesthesia. After surgery the patient was treated in the ward. In this patient, it is known that there is an intracranial tumor, there are no new neurological symptoms such as severe headache, visual disturbances, seizures and decreased consciousness, the size of the tumor compared to the previous 3 months tends to be the same. The patient had hydrocephalus without any signs of obstruction. The patient underwent a cesarean section under anaesthesia using epidural anesthesia.

**Keywords**: Epidural Anesthesia, Intracranial Tumor, Cesarean section

***MULTIPLE INJECTION  
PARAVERTEBRAL BLOCK FOR  
BREAST WOUND DEBRIDEMENT***



## MULTIPLE INJECTION PARAVERTEBRAL BLOCK FOR BREAST WOUND DEBRIDEMENT

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### ABSTRACT

**Background :** Breast cancer is the most common cancer in woman worldwide. Wound infection still become one of the early complication after modified radical mastectomy. In most cases surgical wound closure and debridments remains the effective treatment for wound infection. Paravertebral block offers complete unilateral block and has long term analgesic effect can be used as an anesthetic technique in breast wound debridement surgery.

**Case Illustration :** A 19-year old woman with surgical site infection after right modified radical mastectomy underwent breast wound debridement surgery with multiple injection paravertebral block as a sole anesthesia regiment for this surgery. We perfomed landmark guided paravertebral block at T4 using 15 mL 0.5% isobaric bupivacaine and at T6 using 5 mL 0.5% isobaric bupivacaine with dexmedetomidine 0.2 to 0.4 mcg/kg/hour as sedation agent. The block was achieved in 20 mintues. Hemodynamic was stable during intraoperative phase. The postoperative pain level is low and there was no complication such as pulmonary and neurological complications.

**Conclusion :** Multiple injection paravertebral block technique can be used in breast wound debridement surgery as a sole anesthetic agent due to adequate block level, stable hemodynamic, block duration, and eliminate the risks and complication of general anesthesia.

**Keywords:** Paravertebral block, breast wound debridement, multiple injection

*ANAESTHETIC CONSIDERATIONS FOR  
PATIENT WITH ANTIPHOSPHOLIPID  
SYNDROME UNDERGOING  
HYSTEROSCOPIC LAPAROSCOPY  
SURGERY*



# ANAESTHETIC CONSIDERATIONS FOR PATIENT WITH ANTIPHOSPHOLIPID SYNDROME UNDERGOING HYSTEROSCOPIC LAPAROSCOPY SURGERY

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## ABSTRACT

**Background** : Antiphospholipid syndrome (APS) is an acquired thrombotic autoimmune disorder that is clinically characterized by the development of thrombosis and obstetric morbidities in patients with antiphospholipid antibodies. Due to hypercoagulability, the focus of Anesthetic management is the use of anticoagulant for the prevention of thrombosis and its recurrence.

**Case Illustration** : A 27-years-old woman, diagnosed with APS, undergo Hysteroscopy-Laparoscopy procedure. Patient chief complaint was recurrent pregnancy loss, with no prior history of thrombotic event. Patient received aspirin, and subcutaneous heparin preoperatively. Patient was assessed with ASA II physical status and undergo General Anesthesia with endotracheal intubation, with standard monitoring intraoperative, and patient were discharged to ward and given multimodal analgesia postoperatively with no thrombotic event during surgery.

**Conclusion** : Spinal anesthesia with low dose bupivacaine combined with opioids for cesarean section was revealed maternal and neonate safe.

**Keywords**: Spinal Anesthesia, Pregnancy, Hyperthyroidism, Mitral Regurgitation

*INTRAOPERATIVE MANAGEMENT OF  
ADRENAL TUMOR RESECTION*



## INTRAOPERATIVE MANAGEMENT OF ADRENAL TUMOR RESECTION

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### ABSTRACT

**Background** : Adrenal tumors may lead several complications, especially caused by hypertension, so requiring surgical management with adrenalectomy procedure. Adrenal tumors is a form of neuroendocrine tumor, that associated with unpredictable clinical course during anesthesia and surgical intervention, so the anesthesiologist should have good knowledge about it.

**Case Illustration** : A 12-year-old male who had previously diagnosed with right-sided adrenal gland tumor suspect pheochromocytoma, grade II hypertension, mild aorta regurgitation, and hyponatremia was subjected to total adrenalectomy. He was prescribed preoperative medical management with hypertension drug and oral salt intake. He underwent the surgery under general anaesthesia with premedications was performed with midazolam 1 mg and fentanyl 100 mcg. Induction was done by administering propofol 50 mg. During the surgery, patient was administered with hypertension drug, norepinephrine, epinephrine, vasopressin. Post operatively, patient was administered with analgesics, antibiotics, and antihypertension drugs.

**Conclusion** : Management of adrenal tumor's resection need prompt of preoperative hemodynamic control, induction of anesthesia, anesthetic drugs, and intraoperative collaborations.

**Keywords**: adrenal tumor, adrenalectomy, anesthesia, intraoperative, resection

*SERRATUS ANTERIOR PLANE (SAP)  
BLOCK IN BREAST CONSERVING  
SURGERY*





## SERRATUS ANTERIOR PLANE (SAP) BLOCK IN BREAST CONSERVING SURGERY

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### ABSTRACT

**Background** : *Post surgery period related with acute pain that causes restricted mobility. Postoperative pain elimination may improve outcome, early mobilization, and prevent development acute pain becomes chronic pain. Serratus anterior plane (SAP) block considered to be applied for perioperative or postoperative pain management in breast surgery than other regional anesthetic techniques due to its safer technique and ability to maintain pain free state for up to 3 until 12 hours postoperatively with single injection.*

**Case Illustration** : *We reported a 44-year-old woman with invasive breast carcinoma, we assessed patient with ASA 2, the patient underwent SAP block combined with general anesthesia in breast conserving surgery, SAP block was performed after surgery in lateral position with operation side upward using ropivacaine 0.375%, dexamethasone 5 mg, and epinephrine 100 mcg with total volume of 20 ml. After surgery hemodynamics was stable and the patient was transported to the ward, patient was given paracetamol 1 gram and ketorolac 30 mg as postoperative analgetics. Postoperative pain follow up was performed up to 24 hours postoperatively. Pain assessment using visual analogue score (VAS) showed minimal postoperative pain 6 hours postoperatively with VAS value of 2 and the patient was able to mobilize left and right tilts and sit in short period and 24 hours postoperatively with VAS value of 1 and patient able to mobilize walking. In the ward, patient was given eight hourly analgetic with ketorolac 30 mg without any additional rescue analgetics. There were no complaints of nausea and vomiting, no side effects and complications related to the blocks.*

**Keywords**: *serratus anterior plane block, nerve block, breast surgery, pain management*

*PERIOPERATIVE MANAGEMENT IN  
PEDIATRIC SPONTANEOUS  
INTRACEREBRAL HEMORRHAGE*



## PERIOPERATIVE MANAGEMENT IN PEDIATRIC SPONTANEOUS INTRACEREBRAL HEMORRHAGE

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### ABSTRACT

**Background :** The annual incidence of pediatric stroke ranges from 4.6 to 13 in 100,000 across children of all ages. Spontaneous intracerebral hemorrhage (SICH) in pediatrics can be caused by vascular abnormalities including arteriovenous malformations (AVM), vein of Galen malformations (VOGM), and cavernous malformations.

**Case Illustration :** An 11-year-old male patient suddenly vomited and then syncope 2 hours before admission. There was no previous history of trauma. Level of consciousness was GCS E2VxM5 and CT Scan examination showed left temporoparietal intracerebral hemorrhage. Patient was planned a decompression craniectomy hematoma evacuation with physical status ASA 3E. Standard ASA monitoring was applied. Blood pressure was 115/58 mmHg, pulse rate 98 x/m, respiration rate 20 x/m, saturation 99%, respectively. Patient body weight 28 kg. We gave premedication midazolam 1.5 mg, preemptive analgesic fentanyl 75 mcg, lidocaine 40 mg, propofol 50 mg. Anesthesia was deepened with sevoflurane 2% O<sub>2</sub> 100% FGF 4lpm then rocuronium 20 mg administered, followed by endotracheal intubation, with a 6.0 cuffed ETT. Maintenance anesthesia using continuous intravenous propofol (50-200 mcg/kg/min ~ 8.4-33.6 cc/hour) combined with continuous fentanyl (2-3 mcg/kg) and 50% oxygen in air. D51/2NS was maintenance fluid 84 cc/hour. During 2,5 hours surgery, bleeding was 200cc and PRC 100 cc was administered. Mean diuresis was 5.71 cc/kg/hour and fluid balanced -70 cc. Hemodynamic was stable during surgery. Patient was admitted to the PICU for 2 days, then sent to ward on day 3. Patient was discharged on the 7th day with sequele which are GCS E4VxM5, aphasia, and right hemiparesis.

**Conclusion :** Anesthesia management in patients with cerebral hemorrhage has its own challenges, especially in pediatric cases, based on the patient's developmental stage. The anesthetic technique aimed to maintain optimal cerebral perfusion, control ICP, and avoid secondary brain injury.

**Keywords:** Spontaneous Intracerebral Hemorrhage, pediatric, stroke, neuroanesthesia

*COMBINED ULTRASOUND-GUIDED  
THORACIC PARAVERTEBRAL, COMBIPECS  
BLOCK FOR RIB FRACTURES SURGERY IN  
OBESE PATIENT*



# COMBINED ULTRASOUND-GUIDED THORACIC PARAVERTEBRAL, COMBIPECS BLOCK FOR RIB FRACTURES SURGERY IN OBESE PATIENT

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## ABSTRACT

**Background** : One in five patients treated after trauma encounter at least one of her rib fractures, and mortality is specifically related with the number of fractures. Regional anesthesia is the gold standard for management of rib fracture pain in thoracic injury. Thoracic peripheral nerve blocks include intercostal blocks, thoracic paravertebral blocks (TPVB), and thoracic fascial plane blocks COMBIPECS, a single needle pass which combined both pecs 1 and pecs 2, are shown for surgical procedures requiring unilateral anesthesia and analgesia.

**Case Illustration** : A 47-year-old man with close fractures of man with 4th and 5th rib fractures with wiring costae surgery. The patient was ASA 2 with smoking and grade 1 obese. The patient was anaesthetized with combined Ultrasound-Guided TPVB and COMBIPECS Block. COMBIPECS blocks are performed under sedation in supine position with 10 mL of bupivacaine isobaric 0.5% and lidocaine 2% 15cc. After that, the TPVB was performed in the right lateral decubitus position. A needle is inserted and visualized entering the thoracal paravertebral space then bupivacaine 0.5% isobaric 10cc and lidocaine 2% 10cc deposited here. After that, the patient had local anesthetic systemic toxicity (LAST) and was resuscitated. Surgery was continued with blocks and dexmedetomidine sedation. The duration of surgery was 5.5 hours with postoperative observation in the ICU for 1 day.

**Conclusion** : Combined ultrasound-guided thoracic paravertebral, COMBIPECS block was successful for rib fractures surgery. Patient with LAST after stabilized and assessment of adequacy block can be proceeded to surgery. Combination with these blocks provide adequate coverage of the dermatomal block in anterior and posterior of thorax.

**Keywords**: Ultrasound-Guided, Thoracal Paravertebral, COMBIPECS, Rib Fractures Surgery



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