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Abstract Book

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Edgar B. Rodas, MD, FACS

Virginia Commonwealth University, USA

Mobile Surgery: Three decades of reaching the most distant communities

Abstract

Background

The Cinterandes foundation is a non-profit organization that conceived the idea of building a Mobile Surgical Unit (MSU), a fully functional operating room in a 24-foot-long truck to reach remote and underserved communities in Ecuador since 1994. The aim of this report is to transmit and disseminate the experience of this innovative means of delivering quality surgical and anesthesia care overcoming the delays and challenges of conventional healthcare delivery.

Patients and Methods

This is a descriptive, retrospective review of a prospectively collected database from 1994 to 2024 records of patients and communities served by the MSU in Ecuador by a single non-profit organization and its group of volunteers.

Results

For 30 years the Mobile Surgery Program of the Cinterandes foundation has conducted its outreach program in collaboration with local academic institutions (University of Cuenca and University of Azuay), Ministry of Health, local authorities and leaders, communities, volunteers and other stakeholders. The MSU has reached 19 of the 24 provinces of Ecuador, 120 communities, traveling over 300,000 Km, conducting over 1,700 surgical brigades, and completing nearly 10,000 ambulatory-type surgical procedures with excellent results and very high patient satisfaction. Surgical specialties include general surgery, urology, gynecology, pediatric surgery, plastic surgery, ophthalmology, ENT, and orthopedic surgery.

Conclusion

For the last 3 decades, Cinterandes has provided quality surgical care following evidence-based, carefully designed novel protocols ensuring patient safety throughout the continuum of care. This system of delivering surgical and anesthesia care to underserved communities could easily be replicated in other LMICs.

Orestis Ioannidis

Medical School, Aristotle University of Thessaloniki, Greece

Open abdomen and negative pressure wound therapy for acute peritonitis especially in the presence of anastomoses and ostomies

Abstract

Acute peritonitis is a relatively common intra-abdominal infection that a general surgeon will have to manage many times in his surgical carrier. Usually it is a secondary peritonitis caused either by direct peritoneal invasion from an inflamed infected viscera or by gastrointestinal tract integrity loss. The mainstay of treatment is source control of the infection which is in most cases surgical. In the physiologically deranged patient there is indication for source control surgery in order to restore the patient's physiology and not the patient anatomy utilizing a step approach and allowing the patient to resuscitate in the intensive care unit. In such cases there is a clear indication for relaparotomy and the most common strategy applied is open abdomen. In the open abdomen technique the fascial edges are not approximated and a temporarily closure technique is used. In such cases the negative pressure wound therapy seems to be the most favourable technique, as especially in combination with fascial traction either by sutures or by mesh gives the best results regarding delayed definite fascial closure, and morbidity and mortality. In our surgical practice we utilize in most cases the use of negative pressure wound therapy with a temporary mesh placement. In the initial laparotomy the mesh is placed to approximate the fascial edges as much as possible without whoever causing abdominal hypertension and in every relaparotomy the mesh is divided in the middle and, after the end of the relaparotomy and dressing change, is approximated as much as possible in order for the fascial edges to be further approximated. In every relaparotomy the mesh is further reduced to finally allow definite closure of the aponeurosis. In the presence of ostomies the negative pressure wound therapy can be applied as usual taking care just to place the dressing around

the stoma and the negative pressure can be the standard of -125 mmHg. However, in the presence of anastomosis the available date are scarce and the possible strategies are to differ the anastomosis for the relaparotomy with definitive closure and no further need of negative pressure wound therapy, to low the pressure to -25 mmHg in order to protect the anastomosis and to place the anastomosis with omentum in order to avoid direct contact to the dressing. The objective should be early closure, within 7 days, of the open abdomen to reduce mortality and complications.



What will audience learn from your presentation?

- Open abdomen should be carefully tailored to each single patient taking care to not overuse this effective tool
- Every effort should be exerted to attempt abdominal closure as soon as the patient can physiologically tolerate it
- All the precautions should be considered to minimize the complication rate
- Negative pressure wound therapy in peritonitis seems to improve results in terms of morbidity and mortality and definitive abdominal closure
- When an ostomy is present there are only subtle differences in management
- When an anastomosis is present consider:
- Placing the anastomosis remotely to visceral protective layer and thus the negative pressure
- Place the omentum over the anastomosis
- Decrease the negative pressure to even as low as -25 mmHg
- Perform a sutured anastomosis rather than a stapled one

Biography

Dr. Ioannidis is currently an Assistant Professor of Surgery in the Medical School of Aristotle University of Thessaloniki. He studied medicine in the Aristotle University of Thessaloniki and graduated at 2005. He received his MSC in "Medical Research Methodology" in 2008 from Aristotle University of Thessaloniki and in "Surgery of Liver, Biliary Tree and Pancreas" from the Democritus University of Thrace in 2016. He received his PhD degree in 2014 from the Aristotle University of Thessaloniki as valedictorian for his thesis "The effect of combined administration of omega-3 and omega-6 fatty acids in ulcerative colitis. Experimental study in rats." He is a General Surgeon with special interest in laparoscopic surgery and surgical oncology and also in surgical infections, acute care surgery, nutrition and ERAS and vascular access. He has received fellowships for EAES, ESSO, EPC, ESCP and ACS and has published more than 180 articles with more than 3000 citations and an H-index of 28.

Stacy Street, MD

Department of Surgery, Division of Acute Care Surgical Services Virginia Commonwealth University Richmond, Virginia, USA

Why Will This Wound Not Heal? A review of the principles of wound management

Abstract

In this presentation, the basics of outpatient wound care, underlying etiology separate from the wounding event, appropriate diagnostic work-up, and therapeutic strategies will be reviewed. The sequence of events in normal wound healing and how this process fails will be discussed. To illustrate these topics, a series of outpatient cases of complex traumatic and non-healing wounds will be presented, along with the co-morbidities that commonly affect wound healing. These co-morbidities include, but are not limited to, peripheral arterial and venous disease, diabetes mellitus, autoimmune diseases, end-stage renal disease, and spinal cord injury. Medical considerations and advanced wound care therapies utilized will be discussed in each case, and the classes of wound care products, their mechanisms of action, and indications for use will be included. Because discharge planning and post-hospitalization management are crucial, coordination with outpatient wound care providers will also be covered. By the end of the session, the listener will better understand the complexities of managing refractory wounds.

Biography

Proper wound care is complex. It requires lifestyle changes. And it takes hard work to heal and stay healed. Dr. Stacy Street wants her patients to understand the road ahead.

"Patients need to know that it will take work to heal their wounds — both on our part as physicians, and on their end, too,'" she says. "I don't 'sugar-coat' — I'm very upfront with my patients. I want them to understand and feel comfortable as we discuss what is needed for them to heal and develop a plan to make that happen."

Dr. Street treats patients with wounds and skin ulcers that aren't healing properly, often playing the role of "wound detective" to figure out what isn't working, then moving to fix the underlying issue while providing advanced wound care. Dr. Street has practiced as a general surgeon since 2001, and over time built a passion for wound care management. Today, the focus of her practice is caring for wounded patients and growing the program at VCU to improve access for patients with wounds.

Alexey Shabunin

Alexander Klimakov, Yury Logvinov, Andrey Lukin Botkin Hospital, Moscow, Russia*

Laparoscopic intracorporeal suturing training in simulation and effectiveness estimation

Abstract

Intracorporeal laparoscopic suturing (ILS) is the key skill in performing laparoscopic operations (LO). This is a difficult skill to develop because it requires developing a complex of psychomotor, visuospatial skills and stereoacuity (3D vision) at the same time.

An important stage in ILS acquisition is training in medical simulation centers. Simulation trainings are safe for patients and allow developing ILS skill by multiple repetitions of specific excesises.

Simulative trainings aim to help to develop essential and advanced ILS skills for implementing them into operative practice. However this aim is not always achieved: insufficient confidence in skills and varies stress factors during operations hinder implementation of ILS in real practice.

There are few publication on it; existing ones demonstrate ILS skills transferring into practice rate of 43,8% до 72,5%.

ILS simulative training program (TP) has been developed to increase skill trainees confidence for intracorporeal suturing using standart surgical (StK) and slip knot SlK). TP consists of implementing video and face-to-face demonstration of ILS, correct using endoinstrument, motor tasks with accent on activity of the non dominant hand, needle manipulations and positioning, forming knots, consequent use of open box trainers and close box trainers with 2D-monitors.

ILS TP effectiveness was studied among surgeons (54 persons) who attended TP in 2018-2022 without previous ILS training and not used ILS in practice. The structured interview of the attandees using a specific questionary list was implemented. The study showed the results in 3 months after training: transferring into practice rate for suturing with StK – 88,9%, for SlK

– 72,9%. 84,6% participants pointed out expanded range of laparoscopic operation, 73,0% - contracted longitude of LO.
The conclusion: ILS TP demonstrated effectiveness higher than average and may be recommended for surgical postgraduate programs. The effectiveness estimation method for surgical training program is affordable and allows to estimate results of skill implementation in practice for general set of trainees.

Biography

Has finished Medical University at 23 old years and general surgery residency at 30 years old at City Hospital, Kemerovo, Russia.
He is the deputy chief of Medical Simulation Center at Botkin Hospital, Moscow, the member of postgraduate accreditation commission on surgery. He has Published in excess of 20 Postgraduate surgical training programms and articles.

James St. Louis MD

Augusta Univesity , Augusta GA, USA

Establishment of a Global Platform for the Treatment of Congenital Heart Disease by "Creation and Unification of National Congenital Heart Surgery Databases and Registries": It's Time!

Abstract

Creation of a global platform to acquire knowledge and expertise for the treatment of congenital heart disease is critical for the care of children throughout the world. This need is exemplified by the significant number of children that lack adequate access to such care. It is estimated that almost 75% of the world's population lack access to adequate therapy to treat congenital heart disease. A critical mission of the World Society for Pediatric and Congenital Heart Surgery (WSPCHS) is to create a platform "to promote the highest quality of comprehensive cardiac care to all patients with congenital heart disease across the globe" The WSPCHS has recently embraced an effort to foster the development of dedicated national congenital heart surgery databases across the globe. The initial effort with creation of a national congenital heart surgery database occurred in South Korea. Currently 8 individual Korean centers contribute to the linkage to the global platform created by the WSPCHS. Similar efforts, at various stages, are underway in Vietnam, Philippines, Mexico, Argentina, Indonesia, Thailand, and Malaysia.

Biography

Dr. James St. Louis currently holds the J. Harold Harrison Endowed Chair of Surgery at the Augusta University, University of Georgia Health System. He serves as the Chief of Pediatric and Congenital Heart Surgery at the Children's Hospital of Georgia and Co-director of the Pediatric and Congenital Heart Program. After completing medical school at Georgetown University School of Medicine, he accepted a cardiothoracic residency at Duke University under Dr.David Sabiston.. He has been practicing congenital heart surgery for the last twenty year. His clinical expertise has focused on optimizing surgical outcomes with neonatal heart defects. Dr. St. Louis's most recent academic efforts have focused on international outcomes of congenital heart surgery.

Brian Bernhardt, MD

Louisiana State University, USA

Radiofrequency ablation (RFA) is a minimally invasive procedure for facet joint pain

Abstract

Propose of Review

Radiofrequency ablation (RFA) is a minimally invasive procedure for facet joint pain. The targets for the procedure are the medial branches of the dorsal spinal nerves which innervate the facet joints. Before RFA, patients undergo diagnostic meal branch blocks to ensure appropriate pain relief and confirm the utility of proceeding to RFA. The success of RFA relies heavily on procedural technique and accurate placement near the medial branch.

Recent Findings

Motor testing is utilized in the lumbar region to assess the response of the multifidus and ensure proper placement of the RFA probe to prevent inadvertent damage to surrounding spinal anatomy. However, relying on motor responses in this area presents challenges given the frequency of lack of muscle twitching. Factors contributing to limited muscle twitch responses include muscle atrophy, excessive lordosis, facet arthropathy, local anesthetic use before ablation, and previous surgical neurotomy. These complexities highlight the challenges in ensuring precise motor stimulation during RFA. Despite these obstacles, accurate anatomical placement remains crucial. For RFA cases that prove challenging, relying on anatomical placement can be adequate to proceed with the procedure.

Biography

Dr. Bernhardt is a Board Certified Anesthesiologist specializing in interventional pain management and began his work life as a professional bucking horse rider. After sustaining multiple injuries, he suffered from Chronic Pain and has since dedicated his life to alleviating pain in others. Dr. Bernhardt received his medical training at Drexel University College of Medicine and is Board Certified Anesthesiologist and has been practicing Interventional pain for over 10 years. At LSU Health Shreveport, he not only provides interventional techniques, but utilizes the most cutting edge technology and science to alleviate patient's pain.

As Clinical director, Dr. Bernhardt and the LSUHS pain team use all available resources to empower and assists patients to return to work, improve their quality of life, and decrease dependence on medication and health providers.

Byung Moon Kim

College of Medicine, Yonsei University, South Korea

Long-term outcomes of rescue stent for acute stroke

Abstract

Rescue stent (RS) is an accepted rescue option after failed mechanical thrombectomy (MT) for acute ischemic stroke due to intracranial atherosclerotic stenosis (ICAS)-related large vessel occlusion (LVO). However, the long-term outcomes (≥ 12 months) of RS have not yet been elucidated.

We retrospectively analyzed the data of 154 patients with RS for ICAS-related LVO, which were identified from prospectively maintained multicenter database of RS after MT failure, to assess good outcome (mRS 0–2), mortality, stroke recurrence, symptomatic intracranial hemorrhage (SICH) and stent patency.

Among 154 patients, successful recanalization was achieved in 132 (85.7%) after RS. Clinical follow-up was available in 148 patients at 3 months, of whom 126 were followed longer than 12 months. Good outcome was observed in 53.4% (79/148) at 3 months and 53.2% (67/126) at the final assessment among survivors (median [interquartile range (IQR)] months, 33 [13-91]). The overall incidence of mortality was 16.2% (24/148) Mortality occurred in 8.8% (13/148) of patients at 3 months and 8.7% (11/126) thereafter, respectively. Stroke recurrence was 0.7% (1/148) within 3 months and 3.2% (4/126) thereafter. The overall incidence of SICH was 9.5% (14/148). SICH occurred in 8.8% (13/148) within the first 3 months, and in 0.8% (1/126) thereafter. The stented vessel was patent in 81.1% (99/122) at the first follow-up (median [IQR] days, 3 [1-125]) and 96.7% (89/92) at the final follow-up (median [IQR] months, 18 [13-68]).

Patients with RS for ICAS-LVO showed low stroke recurrence rate in the long term. The long-term patency of rescue stent appears to remain durable, particularly when it remains patent during the initial follow-up.

Biography

finished his PhD at 25 years old years from Andhra University and postdoctoral investigations from Stanford University School of Medicine. He is the chief of XXXX, a head Bio-Soft administration association. He has Published in excess of 25 papers in rumored diaries and has been filling in as a publication board individual from notoriety.

Nagwa Abdel Meguid

Head of Human Genetics and disability NRC, Egypt Head of the CONEM Egypt Child Brain Research, Senior Geneticist at Yale University, USA

Clinical and Genetic Diagnosis of Rare Syndromes:15 years of Scientific Experience at Human Genetics and Disability Clinic, National research Centre, Egypt

Abstract

Genetic diversity within Arab populations, along with the fact that rates of inbreeding are often high and family sizes are often large, constitutes conditions that facilitate the emergence and detection of rare syndromes explained notably by autosomal recessive inheritance. Consanguineous marriages have a long history and are respected in Arab culture. Studies of parental consanguinity in the Egyptian population show frequencies ranging from 33% to 42 %. According to the World Health Organization the term congenital anomaly syndromes includes any morphological, functional, biochemical or molecular defects that may develop in the embryo and fetus from conception until birth. The impact of the birth defects on the fetus and newborn infant is great as they are responsible for 495,000 deaths worldwide. There is a high frequency of autosomal recessive disorders, which are monogenic disorders caused by mutations affecting both copies of a gene. Arab countries have shown considerable progress in prevention and combating of infectious diseases, genetic rare disorders have remained a major health problem. When the child is born with a disability, in addition to regular adaptation, the family must cope with stress, grief, disappointments, and challenges, which may lead to a serious crisis or even disruption of family life. In this presentation, we tried to assess the frequency and nature of congenital malformations (CMs) among Egyptian infants and children. 20,000 patient were retrieved from the Clinic where only 2500 had rare genetic disorder. According to ICD-10 classification of congenital malformations, we discovered that the commonest system involved were, nervous system, followed by chromosomal abnormalities. Consanguineous

marriage was detected in 40.9% of patients. With rapid advances in medical genetics, recent advances in molecular medicine and high throughput screenings, such as array comparative genomic hybridization (CGH) , exome and whole genome sequencing, are yielding new regions and new genes of interest in early diagnosis and recent genetic testing for these rare diseases. With this growing awareness of rare diseases, the number of patients directly affected and also of the people living with them as caregivers, are estimated to be much larger than once believed. The presentation will discuss some rare syndromes in details. Clinical recognition of rare phenotypes leading to a targeted molecular testing approach can strengthen the hand of the clinician in answering additional questions about the recurrence risk and prognosis. With a better knowledge of their pathogeneses processes, better opportunities to address counseling, prevention and treatment.

Segundo Mesa Castillo

Psychiatric Hospital of Havana, Cuba

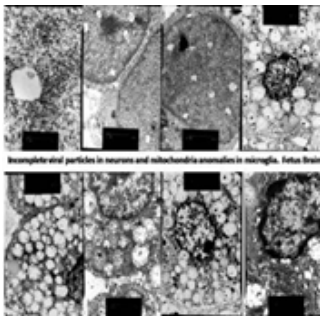
Direct evidence of viral infection and mitochondrial alterations in the brain of fetuses at high risk for schizophrenia

Abstract

There is increasing evidences that favor the prenatal beginning of schizophrenia. These evidences point toward intra-uterine environmental factors that act specifically during the second pregnancy trimester producing a direct damage of the brain of the fetus [1]. The current available technology doesn't allow observing what is happening at cellular level since the human brain is not exposed to a direct analysis in that stage of the life in subjects at high risk of developing schizophrenia. Methods. In 1977 we began a direct electron microscopic research of the brain of fetuses at high risk from schizophrenic mothers in order to finding differences at cellular level in relation to controls. Results. In these studies, we have observed within the nuclei of neurons the presence of complete and incomplete viral particles that reacted in positive form with antibodies to herpes simplex hominis type I [HSV1] virus, and mitochondria alterations [2]. Conclusion. The importance of these findings can have practical applications in the prevention of the illness keeping in mind its direct relation to the aetiology and physiopathology of schizophrenia. A study of the gametes or the amniotic fluid cells in women at risk of having a schizophrenic offspring is considered. Of being observed the same alterations that those observed previously in the cells of the brain of the studied fetuses, it would intend to these women in risk of having a schizophrenia descendant, previous information of the results, the voluntary medical interruption of the pregnancy or an early anti HSV1 viral treatment as preventive measure of the later development of the illness.

1. Yolken RH, Torrey EF. Viruses, schizophrenia and bipolar disorders. Clin Microbiol Rev 1995; 8: 131-145.
2. Mesa CS. An ultrastructural study of the temporal lobe and peripheral blood in

schizophrenic patients. Rev Neurol 2001; 33: 619-623.



Biography

Segundo Mesa Castillo. As Specialist in Neurology, he worked for 10 years in the Institute of Neurology of Havana, Cuba. He has worked in Electron Microscopic Studies on Schizophrenia for 32 years. He was awarded with the International Price of the Stanley Foundation Award Program and for the Professional Committee to work as a fellowship position in the Laboratory of the Central Nervous System Studies, National Institute of Neurological Diseases and Stroke under Dr. Joseph Gibbs for a period of 6 months, National Institute of Health, Bethesda, Maryland, Washington D.C. USA, June 5, 1990. At present he is member of the Scientific Board of the Psychiatric Hospital of Havana and give lectures to residents in psychiatry.

Sergey Suchkov

The Russian University of Medicine, Moscow, Russia

The foundation and architecture of Personalized and Precision Medicine (PPM) in Clinical Neurology-related Practice

Abstract

Over the course of history, healthcare and thus healthcare philosophy have been focused predominantly on efforts to probe the already diseased individual by focusing down on a type of disorder (nosology) rather than on health or so-called pre-illness conditions. Much less effort has been placed on keeping individuals from developing disorders in the first place. PPM is expected to transform this situation giving healthcare professionals of tomorrow much more reliable control over morbidity, mortality and disabling rates, and significantly optimize the cost and efficacy of treatment for those who have fallen ill and already diseased, or are still persons-at-risk. PPM is a name for the grand new paradigm in healthcare management being based first on prevention, pre-clinical detection of the illness, and delivery of drugs to target tissues with exceptional levels of precision.

Policy formation in the field of individual health promotion and protection is one of the priority tasks of national healthcare systems. Canonical health care is becoming increasingly unaffordable in most of the countries, yet it remains ineffective in preventing or effectively treating chronic diseases. The medicine of the XXI century is Personalized & Precision Medicine (PPM), by protecting and preserving human health throughout the life. To achieve the goals of value-based healthcare and the implementation of the PPM concept, it is necessary to combine the assets of the newest advances in basic science, OMICS technologies and IT resources with clinical medicine, followed by the introduction and promotion of new generation's translational applications.

The goal of PPM is to deliver optimally targeted and timed interventions tailored to an individual's molecular drivers of disease. In this context, neurological diseases are promisingly suited models for PPM because of the rapidly expanding genetic knowledge base, phenotypic

classification, the development of biomarkers and the potential modifying treatments. Neurological diseases have high degrees of genetic and pathophysiological heterogeneity, irrespective of clinical manifestations. Traditional medical paradigms have focused on late-stage syndromic aspects of these diseases, with little consideration of the underlying biology. Advances in disease modeling and methodological design have paved the way for the development of personalized neurology. So, PPM-guided neurology is the application of principles of PPM, ie, the prescription of specific therapeutics best suited for an individual taking into consideration both genetic and environmental factors that influence response to therapy. The aim is to improve the efficacy and reduce the adverse effects of various therapies. Biomarkers, biomarker-driven targeting and integration of diagnostics with therapeutics are important for the selection and monitoring of treatments of neurologic disorders, covering: molecular profiling, clinical evaluation, personalized diagnosis, targeted treatment selection, monitoring and adjustment.

The future of PPM-guided neurology lies in multimodal digital data, enabling the principles of PPM to be applied in neurological disease diagnostics, treatment, and monitoring at scale, expanding the benefits to everyone. This approach offers a highly accessible, cost-efficient, and non-invasive approach for diagnosing neurological diseases at their clinical and subclinical stages, placing an individual precisely along a disease continuum, and providing the most effective possible canonical and preventive treatment pathways.

For instance, multiple sclerosis (MS), Parkinson's disease and amyotrophic lateral sclerosis (ALS), being chronic, autoimmune, demyelinating disease of the central nervous system, are now main targets for implementation of PPM-related resources and search for specific biomarkers of the disease subtypes. PPM in those disorders include the development of targeted therapies that aim to modulate specific immune pathways involved in the pathogenesis.

PPM-guided neurology stands at the threshold of a revolutionary transformation with the advent of PPM. The intricate tapestry of neurological disorders, long characterized by heterogeneity and complexity, is now being unraveled at the molecular level. By delving into the genetic underpinnings of neurological conditions, we uncover the potential for tailored interventions that promise not only to improve treatment outcomes but also to reshape our understanding of neurological diseases. And a journey from genomics and related OMICS-driven technologies to personalized therapies is not only transforming clinical neurology-related practice but also offering hope to individuals and families affected by neurological disorders. It heralds a new era of neurology where treatments are tailored to the individual, leading to improved outcomes, reduced side effects, and a deeper understanding of disease mechanisms.

By understanding the unique characteristics of a patient's neurological condition, such as genetic predispositions, biomarkers, and disease mechanisms, PPM aims to optimize treatment outcomes and improve patient care. Overall, PPM in neurology holds the promise of advancing our understanding of neurological diseases and transforming healthcare by tailoring interventions to the unique needs of each patient. So, to fully harvest the unique potential of PPM-guided neurology, new generations of new precision diagnostic, predictive, prognostic, preventive, prophylactic, therapeutic, rehabilitative and digital products will need to be matched with new thinking and new practice on the part of all the participants in the clinical neurology-related practice.

Biography

Sergey Suchkov graduated from Astrakhan State Medical University and awarded with MD, then in 1985 maintained his PhD at the I.M. Sechenov Moscow Medical Academy and in 2001, maintained his Doctorship Degree at the Nat Inst of Immunology, Russia. From 1987 through 1989, he was a senior Researcher, Koltzov Inst of Developmental Biology. From 1989 through 1995, he was a Head of the Lab of Clinical Immunology, Helmholtz Eye Research Institute in Moscow. From 1995 through 2004, a Chair of the Dept for Clinical Immunology, Moscow Clinical Research Institute (MONIKI. Dr Suchkov has been trained at: NIH; Wills Eye Hospital, PA, USA; Univ of Florida in Gainesville; UCSF, S-F, CA, USA; Johns Hopkins University, Baltimore, MD, USA. He was an Exe Secretary-in-Chief of the Editorial Board, Biomedical Science, an international journal published jointly by the USSR Academy of Sciences and the Royal Society of Chemistry, UK.

At present, Dr Sergey Suchkov is a Professor of The Russian University of Medicine, and Member of the Russian Academy of Natural Sciences, Moscow, Russia. He is a member of the: New York Academy of Sciences, USA; American Chemical Society (ACS), USA; American Heart Association (AHA), USA; EPMA (European Association for Predictive, Preventive and Personalized Medicine), Brussels, EU; ARVO (American Association for Research in Vision and Ophthalmology); ISER (International Society for Eye Research); PMC (Personalized Medicine Coalition), Washington, USA.

Ricky Bhogal

The Royal Marsden Hospital, London, UK

Multidisciplinary Multivisceral Resections involving the Upper Digestive Tract: A United Kingdom Tertiary Cancer Centre Experience

Abstract

Background: Multivisceral surgical resections (MVR) are highly specialised procedures involving multidisciplinary surgical teams. MVR can be performed to achieve a complete oncological resection of tumours or to achieve cytoreductive surgery. The aim of the study is to evaluate the peri-operative outcomes of patients undergoing oncological multivisceral or multi-tissue resection which involved concomitant resection of the upper digestive tract/ organs (oesophagogastric and hepatopancreatic-biliary).

Methods: This is a retrospective cohort study of patients treated between May 2019 to May 2023 at the Royal Marsden Hospital, London, United Kingdom. All treatment decisions were ratified at tumour specific multidisciplinary team meetings (MDT).

Results: A total of twenty-six patients were included in this series. The mean age and BMI were 54.5 years and 27.1 kg/m2 respectively. 81% of patients had ASA Grade II and 88% had WHO performance status of zero or one. 62% of patients underwent some form of tumour specific neoadjuvant treatment prior to surgical resection. The indication for surgery was due to malignancies originating from the upper digestive tract (38%), gynaecological organs (31%) and urinary tract (27%). The majority of cases (69%) involved surgeons from two sperate surgical specialties. 85% of cases involved resection of at least three or more organs or soft tissue groups. The mean critical care length of stay and total length of hospital stay was 2.8 days and 16.7 days respectively. 35% patients required inpatient blood transfusion.

Clavien-Dindo Grade II, III and IV complication rates were 62%, 12% and 0% respectively. There were no 30-day re-admissions and no 90-day mortalities. The mean duration of follow up was 25.0 months. At time of analysis, the median overall survival (OS) was 21.0 months.

Conclusions: Complex MVR can be performed safely with acceptable perioperative outcomes at specialist centres. To achieve these outcomes patients should be selected carefully on a case-by-case basis with discussion at all respective tumour specific MDTs.

Biography

Ricky Bhogal is a highly esteemed consultant hepatobiliary surgeon at The Royal Marsden Hospital. He graduated from The University of Leicester in 2002, completing an additional BSc(Hons) 1st class in 2000. After that, he was trained at the liver unit in Birmingham, focusing on HPB and liver transplant surgery, succesfully completing his PhD focused on liver ischaemia-reperfusion injury in the year 2011. He has sent time training at other international units including The University of Heidelberg in Germany and The Mayo Clinic in Rochester, USA.

Currently, he maintains his research pursuits at the Institute of Cancer Research (ICR). Within this role, he is a faculty member and co-leads the Upper GI Surgical Oncology research group. He has authored over 100 peer-reviewed articles and several book chapters up to this point.

Ahmad Mirza, MD

Augusta University – Medical College of Georgia, United States

Acute Liver Injury resulting from Sevoflurane during kidney transplant and review of Literature

Abstract

Multiple factors can lead to peri-operative liver injury. Use of sevoflurane as an inhalational anesthetic agent has been associated with acute hepatotoxicity. This report is related to a case of acute hepatic injury resulting in immediate loss of graft following kidney transplant. Patient developed severe comorbidity and complications which lead to loss in allograft. This is a rare situation where all potential causes of graft loss were eliminated and onlysevoflurane was identified as a causative agent.

Saadettin Eskicorapci

School of Medicine, Acibadem University, Istanbul, TURKEY

A Novel Modified Simple Prostatectomy Technique With Davinci Xi:first Resul

Abstract

12 robot-assisted simple prostatectomies had been performed in patients with symptomatic large gland adenomas(LGA) (mean 120, 100-170 cc). Main unique feature of our technique includes a vertical incision of both bladder and prostat capsule which provides us better anatomical vision and bleeding control.

Our modified robotic-assisted simple prostatectomy method for treating lower urinary tract symptoms caused by large prostate adenomas is safer compared to other techniques, with less blood loss, reduced need for blood transfusion, and shorter hospital stays. With our approach, the need for bladder irrigation in the postoperative period has also been minimized.

The main unique feature of our technique includes a transverse incision of the bladder and prostate capsule, which allows for better bleeding control, easier dissection of the prostatic apex and sphincter, and clear visualization of the bladder orifices and adjacent structures.

Our novel modified robotic-assisted simple prostatectomy demonstrates high technical feasibility in patients with large gland adenomas (LGA) and non-malignant etiologies, while significantly reducing the obstructive symptoms of benign prostatic hyperplasia (BPH) in the postoperative period. The modified vertical incision technique may provide better surgical outcomes when combined with advanced robotic expertise.

To better understand the superior outcomes of our method compared to other robotic-assisted simple prostatectomy techniques, larger series and longer follow-ups are needed.

Biography

Prof. Eskicorapci, who received training from world-class academics such as Prof. Freiha, Prof. Presti, Prof. Rassweiller in the field of Urooncology. Prof. Eskiçorapçı received training in the field of Laparoscopic Urological Surgery in many centers abroad in 2006-2007. Dr.Eskicorapci received the title of Professor of Urology in 2013. Prof. Eskicorapci, has a h-index of 18 according to 2024 Google Scholar, and her academic works have been cited over 1000 times. Prof. Eskiçorapçı is the general secretary of the Turkish Urooncology Association. Prof. Eskiçorapçı, speaks English fluently and German. Prof. Saadettin Eskicorapci, MD, FEBU has won several scientific awards and has had 250 scientific studies published in national and international prestigious journals.

Prof. Eskicorapci has his own clinic at Zorlu Center, Istanbul and lecturer in Acibadem University Faculty of Medicine.

Hany Mohamed Elkordy

Prime Healthcare Group, UAE

Late Presentation of Posterior Urethral Valve in a Four-Year-Old Child With Subtle Voiding Symptoms: A Case Report

Abstract

A four-year-old male presented with mild voiding difficulty following pharyngitis and was referred to urology, where an incidental diagnosis of posterior urethral valve (PUV) was made. Urethrocystoscopy confirmed Type I PUV, which was successfully treated with transurethral laser ablation. This case highlights the importance of recognizing subtle pediatric urinary symptoms to prevent potential renal complications. Advances in imaging, surgical techniques, and monitoring strategies play a crucial role in optimizing management outcomes. Early diagnosis and timely intervention remain essential for preserving renal and bladder function, emphasizing the need for heightened clinical vigilance in evaluating pediatric urinary complaints.

Biography

Hany Elkordy, MD is a urologist at Prime Healthcare Group, UAE, with expertise in urology, andrology, and infertility. With extensive clinical experience, he has previously worked in Egypt and Saudi Arabia, managing a wide range of urological conditions. Dr. Elkordy has a strong academic background and has contributed to the field through multiple publications in urology. His areas of interest include minimally invasive urological procedures, male reproductive health, and advancements in urinary tract disease management. Committed to patient-centered care and ongoing research, he actively participates in medical conferences and professional development to stay at the forefront of his field.

Dr. Aqsa Buchh

Specialist Anesthesia in Prime Hospital, Dubai, UAE

Comparative evaluation of clonidine vs fentanyl premedication for intraoperative hemodynamic stability and recovery outcome during laparoscopic cholecystectomy under general anesthesia

Abstract

Background –Laparoscopic cholecystectomy induced intraoperative pressor responses due to pneumoperitoneum which should be attenuated to improve outcome after surgery. The present study was aimed to comparatively evaluate the clonidine with fentanyl premedication for intraoperative hemodynamic stability and recovery outcome during laparoscopic cholecystectomy under general anesthesia.

Patients and Method- After approval and informed consent, 64 adult consented patients of either sex with ASA physical status I and II, scheduled for elective laparoscopic cholecystectomy under general anesthesia and met the inclusion criteria were enrolled for this prospective randomized double blind study. Patients were randomized into two groups of 32 patients. Patients of Group I were given intravenous clonidine 1µg/kg and patents of Group II were given intravenous fentanyl 2µg/kg, 5 min before induction with propofol. Anesthetic and surgical techniques were standardized. All patients were assessed for intraoperative hemodynamic changes at specific time and postoperative recovery outcome as primary outcome. Drug related adverse effects were assessed as secondary outcome.

Results -Hemodynamic responses of laryngoscopy and laparoscopy were effectively attenuated by clonidine as well as by fentanyl. Clonidine was better to fentanyl for intraoperative hemodynamic stability with few incidences of manageable hypotension and bradycardia. No significant differences in the postoperative recovery outcome occurred between the groups. The incidences of postoperative nausea, vomiting, shivering and respiratory depression were

more frequent in patients of fentanyl group but no active intervention was required.
Conclusion- Premedication with clonidine or fentanyl has effectively attenuated the intraoperative pressor responses during laparoscopic cholecystectomy under general anesthesia.

Biography

Dr Aqsa has done her post graduation from Subharti Medical University, India and has over 10 years of experience working as Anesthesiologist in major Govt and private hospitals in India and UAE.
She is currently working as Specialist Anesthesia in Prime Hospital, Dubai

Abier Abdelnaby, MD

Albert Einstein College of Medicine, USA

Same Day Colectomy: Experience of an Urban Academic Center with an Underserved Patient Population

Abstract

Introduction
The development of robotic surgery and Enhanced Recovery After Surgery (ERAS) protocols have independently decreased length of stay after colectomy. The viability of same day discharge after robotic colectomy has been shown in patients with ASA class I-II and often, non-obese BMI. At our institution, we demonstrate good outcomes with same day discharge after colectomy in an underserved patient population inclusive of ASA class II and BMI > 35.
Methods
Retrospective chart review at a single tertiary care center was performed over a 16-month period in patients discharged within the same day after colon surgery. Inclusion criteria were adults ages 18 to 80 undergoing robotic colectomy. Exclusion criteria were conversion to open surgery and ostomy creation. All patients had partial colectomy performed, including right, left, and sigmoid colectomies for benign and malignant pathology. ERAS protocol included pain control with pre- and post-operative multimodal oral medications, restricted use of narcotics, and intra-operative transversus abdominus plane block. Oral diet was initiated immediately and advanced as tolerated. Patients were discharged when tolerating a general diet with pain well controlled on an oral regimen. Readmission rates and post-operative complications were assessed.

Biography

Abier A. Abdelnaby, MD, is Director, Colon and Rectal Surgical Services and Associate Professor, Surgery at Montefiore Einstein. She is a fellowship-trained colon and rectal surgeon with a clinical focus on care for patients with all disorders of the colon, rectum and anus.

After earning her Bachelor of Arts at Cornell University in 1996, Dr. Abdelnaby pursued her Doctor of Medicine at Howard University College of Medicine, receiving her degree in 2001. She continued at Howard University Hospital for her postdoctoral training, starting with a year-long internship followed by a four-year general surgery residency, which she completed in 2006. She then attended the University of Southern California, completing a colon and rectal surgery fellowship in 2007.

Dr. Biswajit Mishra

Plastic Surgeon. CUTTACK, ODISHA. INDIA

Aesthetic Reconstruction Based on Facial Subunit Principle for Basal Cell Carcinoma of the Face: A Retrospective Analysis

Abstract

Background and objective

Basal cell carcinoma (BCC) is the most common malignancy of the skin. Reconstruction of post-excisional defects in BCC should follow the subunit principle for better outcomes. The location of BCC of the face is determined based on facial units; however, very few studies have described the involvement of multiple units and multiple subunits in BCC. In this study, we aimed to provide valuable insights into the management of BCC involving various facial units and subunits, thereby contributing to improved patient care and outcomes.

Materials and methods

We conducted a retrospective study at the Plastic Surgery Department of the SCB Medical College in Cuttack, Odisha, from January 2020 to January 2022, after obtaining ethical approval from the SCB Medical College IRB (no: 1155). We examined 35 patients with BCC of the face. The inclusion criteria were as follows: patients with early-stage and primary tumors that were mobile, not attached to underlying bone or cartilage, and amenable to surgical resection. Conversely, patients with late-stage, neglected, and recurrent tumors, fixed tumors, or those infiltrating the underlying bone or cartilage were excluded from the study. Data collection involved retrieving pertinent information from medical records, including parameters such as age, sex, tumor site, type of flap utilized, follow-up, and any complications observed. The tumor sites were further divided into six separate groups based on facial aesthetic units: the forehead, the nose, the area around the eyes, the cheek, the mouth, and the area around the ear, each with its own subunits.

Mossop Wamba Nde Christelle

University of Yaoundé I, Faculty of Science

Extra-virgin avocado (Persea Americana Mill., Laucaceae) oil improves cognitive impairment in D-galactose-induced Alzheimer's disease model on ovariectomized Wistar Rat

Abstract

Inadequate levels of monounsaturated (MUFA) and polyunsaturated (PUFA) fatty acids have been reported as a risk factor for neurodegenerative diseases, including Alzheimer's disease. Avocado oil (Persea Americana Mill., Laucaceae) represents a source of bioactive compounds with a relative abundance of omega-3, omega-6 polyunsaturated, and omega-9 monounsaturated fatty acids. The present study investigated the effects of extra-virgin avocado oil on the D-galactose-induced Alzheimer's disease model in ovariectomized Wistar rats. The cognitive dysfunctions were induced by D-galactose administration (150 mg.kg−1 i.p) and/or ovariectomy in 54 female rats for 70 days. The rats were concomitantly treated with extra- virgin avocado oil (0.25, 0.5, and 1 mL.kg−1, p.o), donepezil (1 mg.kg−1, p.o), and estradiol valerate (1 mg.kg−1, p.o). Memory disorders were evaluated using the Object Recognition, Y- Maze, and Morris water maze tests. Some biochemical and his to- logical parameters regarding memory function were evaluated on hippocampus homogenate and tissue. D-galactose administration and ovariectomy significantly induced learning and memory impairments, decreased relative hippocampal weight ($p< 0.001$), the levels of acetylcholine ($p< 0.001$), glutamate ($p< 0.001$), reduced glutathione ($p< 0.001$), catalase ($p< 0.05$), and superoxide dismutase ($p< 0.001$) activities, and an increase ($p< 0.001$) in the levels of methylglyoxal, malondialdehyde, and nitrites. The treatment with extra-virgin avocado oil at all tested doses reversed or prevented the negative effects induced by ovariectomy and/or by D-galactose. Taken together, these results suggest that avocado oil possesses neuroprotective properties and can be consumed or supplemented to prevent the onset of Alzheimer's disease.

Biography

I'm enthusiastic PhD student at the University of Yaoundé 1, Cameroon. my research activities mainly focus on dietary approaches to prevent Alzheimer's disease with natural ingredients of plant origin, we investigated the neuroprotective effects of the avocado fruit pulp oil extracted by cold pressing technique on the D-galactose-induced Alzheimer's disease model in ovariectomized Wistar rats, and the results obtained have shown that avocado oil is able to alleviate cognitive and learning deficits in this model of Alzheimer's disease. The article of this work has been recently published in prestigious scientific journal (Biologia).

Amanda Thorpe

Royal Hospital for Neurodisability

Navigating Parkinson's: Integrating Nature, Neuroscience, and the Human Spirit

Abstract

As technology advances our understanding of brain disorders and enables innovative treatment development across neurological conditions, we may risk overlooking the profound, innate resilience of the human body, mind, and connection with nature.

Sail4Parkinsons (Italy) and Spellthorne Parkies (UK) have spearheaded an alternative approach through annual, week-long retreats, providing participants with Parkinson's and their partners with an immersive program of physical, mental, and emotional activities. Led by a multidisciplinary team of neurologists, psychologists, music therapists, and fitness experts, these retreats illustrate how a holistic approach can foster a shift in coping mechanisms, enhance social reintegration, and bring a renewed sense of wellbeing amidst life's uncertainties.

These week-long retreats offer a unique setting where professionals can closely observe the dynamic on- and off-medication cycles of participants, allowing for individualized recommendations regarding medication, activity, and therapeutic timing. Furthermore, the transformative shared experiences create lasting bonds among participants, enhancing their support networks.

While developments in biomarkers, microbiome research, neuroinflammation interventions, deep brain stimulation, and AI-driven predictive modeling offer exciting avenues for Parkinson's management, these retreats underscore the importance of teaching individuals to reconnect with their bodies and minds organically. This integrative approach not only complements high-tech innovations but also grounds them in the holistic principles of self-

awareness, resilience, and quality of life.

Biography

Amanda Thorpe holds a Psychology degree from UCL and a Music Therapy Masters from Guildhall School of Music. She leads the UK Neurologic Music Therapy Support Chapter, and works at the Royal Hospital for NeuroDisability as well as privately. Amanda has worked in a range of hospital, community, educational and corporate settings in New York and London, providing music-informed interventions to facilitate wellbeing, learning, and cognitive functioning. She specialising in trauma, neuro-diversity, and neuro-rehabilitation. She has been published in the Brain Injury Journal and the Bristish Journal of Music Therapy.

Anastasia Keller

University of California, San Francisco

Nonivnaisve Transcutaneous Spinal Cord Stimulation for Treatment of Chronic Low Back Pain: A Pilot Clinical Trial

Abstract

Chronic low back pain (cLBP) is a leading cause of disability worldwide, with a socioeconomic impact estimated at $87 billion per year in healthcare spending. Spinal cord stimulation (SCS) is a promising therapeutic intervention with superior patient outcomes compared to more traditional modalities for the treatment of cLBP. To date, SCS in cLBP has been delivered via epidural electrodes, requiring neurosurgical implantation. Transcutaneous SCS (tSCS) is a novel neuromodulation technique in the field of spinal cord injury. In this study, we report the preliminary results of the pilot clinical trial on the initial efficacy of 12 tSCS therapy sessions to improve pain and objective sensorimotor outcomes in patients with non-specific cLBP. Individuals with non-specific chronic low back pain (duration > 6 months, intensity on Visual Analogue Scale (VAS) > 5 at enrollment) were eligible for the study. Before initiation of therapy, patients underwent a battery of assessments, including sit-to-stand full-body biomechanics with paraspinal and lower extremity surface electromyography (EMG) and resting state electroencephalography (EEG) to assess motor and neurophysiological function objectively. Stimulation was administered via 3-4 surface electrodes placed on the spine between vertebral segments (T8, T10, L1, C5) 3 times a week for 30 minutes per session for 12 sessions in the research clinic. Pain intensity was tracked daily (on both stimulation and non-stimulation days) through daily UCSF RedCap VAS surveys over a month it took to complete the study. Interim analysis suggests that tSCS treatment is producing a significant decrease in VAS from the pain scores reported at enrollment to post-treatment assessment (paired t-test, $t(10)= 8.04$, $p<0.0001$). To-date observed effect size is very large (Cohen's $d = 2.43$, 95% CI [1.21, 3.61]. While the objective sensorimotor outcomes analysis is ongoing, our preliminary results suggest that tSCS shows promising efficacy for acute and longitudinal pain relief based

on patient reported outcomes. A transcutaneous delivery of SCS could provide a non-invasive mode of safe and effective neuromodulation therapy suitable for low back pain patients.

Biography

Dr. Keller received her PhD in Physiology from University of Louisville, Louisville KY in 2017. She completed 2 postodctoral trainings: 1st from Univesity of Louisville in clinical neuroscience and 2nd from Univesity of California, San Francisco in data science. Dr. Keller is a professional researcher/junior faculty in the Department of Neurological surgery at University of California San Francisco (UCSF). Dr. Keller is member of the UCSF Brain and Spinal Injury Center (BASIC) as well as the Core Center for Patient-centric, Mechanistic Phenotyping in Chronic Low Back Pain (UCSF REACH) where she conducts clinical research focused on non-invasive neuromodulation application in cLBP and spinal cord injury (SCI). Her research experience in neuroscience spans three key themes: 1) sensorimotor dysfunction driven by nociceptive mechanisms, 2) implementation of non-invasive SCS in SCI and cLBP and 3) application of unsupervised machine learning approaches to phenotype cLBP patient movement biomechanics.

Ashenafi Guye Dumara

Haramaya University, Dire Dawa, Ethiopia

Determinants of multiple maize technology package adoption in Ethiopia: evidence from the Sidama region

Abstract

The adoption of improved agricultural technology packages is vital in Ethiopia, as the expansion of cultivable land appears nearly exhausted and population size has skyrocketed. However, the country has shown a low adoption rate. Thus, this study aimed to investigate the factors that hinder or facilitate the adoption of multiple maize technology packages and the intensity of adoption in the northern Sidama zone of Ethiopia. A multistage sampling procedure was applied to gather cross-sectional data from 424 farm households owning 545 maize plots. A multivariate probit and two-limit Tobit models were used to address the study objectives. The conditional probability results confirmed that maize technology packages are complementary (positive relationship). This infers that agriculture-focused policies that influence the adoption of a single component of technology packages can have a reinforcing advantage over the adoption of other technologies. Furthermore, the results from the models showed that farmers with greater experience, family size, plot size, livestock and oxen ownership, number of maize plots owned, of-farm income, and access to credit, extension services, and membership in institutions are more likely to adopt at least one of the improved technology packages and achieved a better status of intensity of adoption. The adoption rate and intensity level were meager and there must be relevant interventions that promote wider adoption for better productivity. This, in turn, helps smallholder farmers to get rid of chronic food insecurity and poverty. It is, therefore, crucial to reinforce and deliver quality extension services, provide credit access, motivate youth to be involved in farming activities, inspire membership, and ease the system to access inputs and technologies for broader adoption of technology packages.

Biography

Ashenafi Guye has expertise in lecturing and teaching various courses in the Department of Agricultural Economics and Agribusiness at Bonga and Hawassa University. In addition, he has been participating in research and community service as part of his job. Currently, he is a PhD candidate in the School of Agricultural Economics and Agribusiness at Haramaya University. The research article mentioned above is part of his PhD dissertation work.

F. Javed

St James's Hospital, Dublin, Ireland

Dual diagnosis of multiple sclerosis and Parkinson's disease

Abstract

The typical demographics and clinical presentation of patients with multiple sclerosis and Parkinson's are markedly different. In addition, the symptoms differ, although rarely do the two co-exist. This case report contains two patient reports of such a dual diagnosis. In both cases, the patients had been diagnosed clinically with MS, and this was supported by MRI and CSF analysis. Later in their disease course, a hypokinetic movement disorder emerged with clinical evidence of Parkinsonism. Arising from this unexpected scenario, a dopamine transporter scan was done with bilaterally reduced uptake in both patients. This case report highlights the unusual situation of a dual diagnosis of MS and Parkinson's disease. It highlights the need for ongoing clinical surveillance of MS patients when a lack of response to treatment or clinical progression occurs to aim to identify any other contributory pathologies.

Multiple sclerosis is an inflammatory immune-mediated disease of the central nervous system that affects 2.8 million people globally. The age of onset is typically between the ages of 20 and 40 years, and the sex ratio is 3:1 woman to men.[1,2,3]

In contrast, Parkinson's disease presents more commonly over the age of 60 and affects men more commonly than women30. Given the distinct demographic risks for these two diseases, there is not expected to be much overlap in these two diseases24.
The clinical presentation also differs. Parkinson's is a progressive neurodegenerative disorder of the motor systems characterized by tremor, rigidity, bradykinesia, and postural instability11. It affects one to two per 100,000 people in the developed world.4 Worldwide, 2.8 million people live with MS12.
A dual diagnosis of these two diseases has been described, likely due to chance rather than shared

pathology. Nonetheless, it is rare and raises some intriguing clinical management problems. Research indicates that about 1.4% of people previously diagnosed with the pathogenic variant in LRRK2 may have two diseases, perhaps related to neuroimmune pathogenesis.5 The challenge posed may, in part, relate to the treatment of one disease without a resulting deterioration of the other as a consequence.[6].

Mary Jo S. Farmer

Tufts University School of Medicine, Boston

Non-invasive ventilation in Neurologic and Neurosurgery – using an interprofessioonal approach to treat acute hypercarbic respiratory failure

Abstract

When administered as first-line intervention to patients admitted with acute hypercapnic respiratory failure secondary to COPD exacerbation in conjunction with guideline-recommended therapies, noninvasive ventilation (NIV) has been shown to reduce mortality and endotracheal intubation. Opportunities to increase uptake of NIV continue to exist despite inclusion of this therapy in clinical guidelines. Identifying patients appropriate for NIV, and subsequently providing close monitoring to determine an improvement in clinical condition involves a team consisting of physician, nurse, and respiratory therapist in institutions that successfully implement NIV. Published in CHEST journal (June, 2024), is the first known evidence-based algorithm speaking to initiation, titration, monitoring, and weaning of NIV in treatment of acute exacerbation of COPD that incorporates the necessary interprofessional collaboration among physicians, nurses, and respiratory therapists caring for these patients. Applying this approach to the appropriate neurologic and neurosurgical patient will be discussed.

Biography

Mary Jo S. Farmer, MD, PhD completed her PhD from Boston University School of Medicine and her post-doctooral research and MD from Tufts University School of Medicine. Dr. Farmer practices pulmonary, critical care and sleep medicine at Mass General Brigham – Salem Hospital, Salem, MA and Associate Professor at Tufts University School of Medicine, Boston, MA. Dr. Farmer has academic interest and multiple publications in the field of interprofessional education. An active member of the American College of CHEST Physicians, Dr. Farmer serves as Associate Editor for pulmonary vascular disease section of CHEST Pulmonary open access journal, as a member of CHEST Education Committee and member-ex-officio of the CHEST Pulmonary Vascular Disease Network, Clinical Problems Network, and Interprofessional Network. Dr. Farmer was awarded the Distinguished CHEST Educator Award in 2023 and 2024.

Muhammed Keshavarzi

School of Medicine, gaziantep turkiye

Case Report Reaction to surgicel in neurosurgery

Abstract

The use of Surgicel is one of the methods used to stop bleeding during various surgical operations, especially neurosurgery. The use of Surgicel may cause complications such as inflammation, delayed tissue repair, and necrosis. This case is a 60-year-old woman with a history of craniotomy and reaction to Surgicel who presented to the hospital with symptoms of seizures. The patient underwent craniotomy after a mass diagnosis in the parasagittal region. After reviewing this case, we concluded that the use of Surgicel can have complications for patients, Therefore, it is recommended to use Surgicel in the patient's body so that it is not treated as a mass, abscess, or hematoma in the postoperative period.

Biography

I finished master of ergonomy at 23 years old years and finished MD at 30 years old from gazianatep University and strat neurosurgery in gaziantep.

Peggy B. Shoar

California State University Fullerton, CA 92831, USA

Investigating The Quantum Biofeedback's Viability in Self-Regulatory Therapy and Reducing Anxiety

Abstract

Biofeedback interventions have gained recognition as a promising method for managing anxiety, stress, and depression by enhancing individuals' capacity to regulate physiological responses (Yucha et al., 2008; Wang et al., 2019). Techniques such as heart rate variability (HRV), which monitors and regulates cardiac rhythm; electromyography (EMG), which measures and tracks muscle tension; neurofeedback or electroencephalography (EEG), which assesses brain wave activity; and galvanic skin response (GSR), which evaluates changes in skin conductance, are among the most effective biofeedback methods for anxiety reduction (Goessl et al., 2017; Sandhu et al., 2007 ; Wang et al., 2019; Yu et al., 2018). This research investigates the efficacy of quantum biofeedback in identifying imbalances within the body's electrical signals and tracing them to their underlying causes. Findings suggest that quantum biofeedback provides a more comprehensive self-regulatory approach to stress reduction related to anxiety by addressing interconnected physiological systems holistically. This method demonstrates potential for greater effectiveness in reducing stress, improving emotional regulation, and enhancing mind-body balance, potentially surpassing traditional biofeedback methods (Cadabam's Hospitals, n.d.; Yucha & Montgomery, 2008).

Biography

Peggy Shoar is an adjunct professor at California State University, Fullerton, specializing in developmental and educational psychology. With nearly twenty years of experience, she teaches various courses exploring cognitive, biosocial, and socio-emotional development across the lifespan, particularly focusing on child and adolescent development. Peggy Shoar is also a certified biofeedback specialist with expertise in managing stressors related to brain function, learning disabilities, and mental health challenges.

Rumana Sangi

National Institute of Cardiovascular Diseases (NICVD), Karachi, Pakistan

Incidence, clinical profile and short term outcome of cerebral abscess in cyanotic congenital heart diseases

Abstract

Brain abscess is a serious infection of brain parenchyma in patients with cyanotic congenital heart disease (CCHD) and around 25-46% of unrepaired CCHD patients develop brain abscess. Aim of this study was to determine the incidence, clinical features, microbiology and factors associated with early and short term outcome of cerebral abscess in CCHD. Methodology: This is a retrospective study, conducted at Pediatric cardiology department, National Institute of Cardiovascular Diseases (NICVD) Karachi. The data was collected from January 2019 to December 2021. All CCHD patients between 1-25 years of age were included. Data of patients with cerebral abscess was reviewed. Results & Discussion: Among the 544 pediatric patients hospitalized in the last two years , brain abscesses were identified in 51 (9.3%). Polycythemia (31.4%) was the most significant contributing factor, especially in patients aged above 10 years. The most frequently seen CCHD was tetralogy of fallot (TOF) 60.8%. Majority of the patients (84.3%) had a single abscess while 15.7% had multiple abscesses. E coli (9.7%) was the most common isolated pathogen. Immediate complication identified was cerebral edema in 22 (43.1%). Four patients (7.8%) died, 47(92.2%) patients completed treatment course. 45.1% had complete recovery however, 17(33.3%) had neurological deficits, 8(15.7%) had seizures and 2(3.9%) patients had residual abscess. Prolonged hospitalization was observed in patients of age group <10 years. Conclusion: In Patients with underlying CCHD, early referrals and intervention are key to mitigating the severe consequences of cerebral abscesses and can drastically improve patient outcomes.

Biography

Dr Rumana Sangi is a Paediatric Cardiologist working as Assistant Professor (faculty) in Asia's largest cardiac care centre, National Institute of cardiovascular Diseases Karachi, Pakistan.

She has done her first fellowship Paediatrics followed by second fellowship in Paediatric Cardiology from College of Physicians and Surgeons of Pakistan (CPSP). She has four years of experience in the field of Paediatric Cardiology.

She is a philontropist and has has Published in excess of 18 extensive publications national and international and has done various projects in the field of paediatrics and paediatric cardiology. She bears position as Assistant Editor in Pakistan Heart journal. She is also a Member Of Pakistan Cardiac Society.

Her fields of interest's are, Cardiac imaging , Interventional cardiology, cardiac Critical Care and Electrophysiology.

Usman Farrau

Departments of 1Human Physiology, Ahmadu Bello University, Zaria, Nigeria

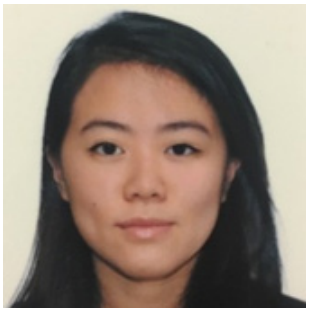
Prevalence and correlates of academic stress, anxiety and depression among medical students at Ahmadu Bello University, Zaria-Nigeria

Abstract

This study investigated the prevalence of academic stress (and associated stressors), anxiety and depression among year two medical students at Ahmadu Bello University, Zaria, Nigeria. Depression, anxiety and stress scale-21 (DASS-21) and medical stressor questionnaire (MSSQ) were filled out by 188 randomly selected participants after obtaining their agreement and written consent to participate. Preliminary reliability tests on the two instruments were conducted using a few (35) subjects before the main data collection. The reliability tests revealed strong internal consistencies of the two instruments, with overall Cronbach's alpha values of 0.937 for DASS-21 and 0.929 for MSSQ. Mean levels of stress, anxiety and depression were found to be normal, moderate and normal, respectively. Significant and strong positive correlations between stress, anxiety and depression levels were observed. The prevalences of the conditions were found to be relatively high: 39.4% for stress, 68.1% for anxiety and 47.3% for depression at various degrees. However, the prevalences of severe to extremely severe levels of the conditions were relatively low for stress (6.9%) and depression (6.9%), and moderate for anxiety (33%). Academic-related stressors were the leading contributors to stress among the participants, with 46.8% perceiving high stress from this category of stressors. The findings of this study indicate a relatively high prevalence rate of stress, anxiety and depression among the participants, while framing a critical view of the academic environment's impact on medical students' mental health, and underscore the importance of proactive measures to support the well-being of this population.

Biography

Usman Farrau is a 38 year old PhD Human Physiology student at Ahmadu bello University, Zari-Nigeria, where he obtained his bachelor's and masters degrees earlier in the same subject. He is currently a full-time lecturer at the said University, starting since 2019, where he has taught hundreds of undergraduate medical students and supervised over 20 undergraduate research projects. He has published up to 15 research articles in reputable local and international Journals in areas ranging from gastroenterology, endocrinology, and neurophysiology. He is an early career researcher with expertise in gastroenterology, endocrinology, toxicology, and metabolism. He now has an interest in the pathophysiology of stress-induced depression, and currently enhancing his research skills along that line through a PhD study. He aims to also build an illustrious academic and research career at one of the world's finest institutions along that line.



Denise Desiree Bi Si Quah, Ethan Koh

Changi General Hospital, Singapore

Alternative Topicalisation Technique for Awake Intubation in Patients with Distorted Anatomy

Abstract

Background: This case report describes the anesthetic management of a 61-year-old male presenting with a large tonsillar mass causing extensive local invasion and significant anatomical distortion of the upper airway. The mass extended to the nasopharynx, soft palate, parapharyngeal, and retropharyngeal spaces, creating challenges in airway management, during biopsy under general anesthesia. He was subsequently diagnosed with diagnosed with cT3N2M0 nasopharyngeal carcinoma (NPC). We aim to discuss anaesthetic considerations in such cases and challenges that may be faced.

Case: The 62-year-old gentleman, with a history of hypertension, presented with progressive throat discomfort, snoring, and a palpable left-sided neck node. Imaging revealed a lobulated, heterogeneously enhancing mass originating in the left tonsillar fossa and invading surrounding structures, with cervical lymphadenopathy but no distant metastasis. Preoperative airway assessment demonstrated a Mallampati grade 4, reduced mouth opening (two finger breadths), and full neck range of motion, indicating a potentially challenging airway. Awake fiberoptic intubation (AFOI) was planned as the primary approach to secure the airway. Topicalisation was done with an oropharyngeal airway (OPA), #6 endotracheal tube (ETT) and nebulized 4% Lignocaine. The patient was sedated with target-controlled infusion (TCI) remifentanil. The method we employed differs from conventional methods as it required the patient to self-topicalise. This reduced anxiety and increased cooperation from the patient. He successfully tolerated AFOI using an Ambu bronchoscope. A #6 ETT was placed, and anesthesia was induced uneventfully. The patient underwent the operation and was extubated awake, spontaneously breathing with good tidal volumes. Post-procedure, he remained stable and discharged well to the general ward.

Anesthetic Considerations and Challenges: The mass location and extent resulted in airway distortion and increased risks of airway obstruction, aspiration, and difficulties in visualization during intubation. Awake fiberoptic intubation remains the gold standard for managing anticipated difficult airways, with studies showing its success rate of >95% in experienced hands and reduced peri-intubation hypoxia compared to other techniques. Remifentanil infusion allowed precise control of sedation, minimizing respiratory depression and maintaining patient cooperation. Adequate topicalization, patient cooperation, and sedation strategies are pivotal for AFOI success.

Biography

Denise Quah graduated from Imperial College London in 2016. She is currently a 4th year resident in the Singhealth Anesthesiology Sharp Programme, Singapore.

Katrine Folmann Finne

Nordsjællands Hospital, Denmark

Outcomes of a delirium prevention programme after major abdominal emergency surgery: An interventional study

Abstract

Background: Postoperative delirium is a common complication after emergency surgery. Delirium is associated with increased morbidity and mortality. Clinical approach varies and pharmacological treatment is ineffective. We aimed to investigate if a structured non-pharmacological multidisciplinary intervention could reduce postoperative delirium.
Methods: An interventional study including all patients aged 65 years or older undergoing major abdominal emergency surgery in an 8-month period. The intervention consisted of improved screening, staff, patient, and family education, ward modifications and nurse-led daily motor and sensory stimulation.
Data was obtained from medical records. Results were compared to an unmatched historic cohort. Primary outcome was occurrence of delirium, secondary outcomes were mortality, postoperative complications, and length of stay.

Results: 312 patients were included, 81 in the study group and 231 in the control group. Delirium occurred in 6.2% of the interventional group compared to 15.2% in the historic cohort (p=0.038). In a multivariate regression analysis, the rate of delirium was significantly reduced in the interventional group; OR 0.185 95% CI (0.04-0.81), p = 0.026. The 90-day mortality was 14.8% in the interventional group and 8.7% in the historic cohort, (p = 0.116). The rate of overall medical complications was significantly lower in the study group (37% vs. 63%, p<0.001). Median length of stay was 6 days in both groups.

Conclusions: A structured cluster intervention may prevent the occurrence of postoperative delirium. The intervention did not reduce mortality or length of stay, but the need for supplementary nursing staff was eliminated.

Biography

Dr. Folmann Finne born in Denmark and obtained her medical degree from Copenhagen University in 2020. Since completing her general surgery internship, she has gained experience in thoracic and pediatric surgery, soon commencing her specialist training in abdominal surgery.

Dr. Folmann Finne is passionate about leadership in surgery, believing it to be communicative and conscientious as well as operative. She teaches simulation based non-technical skills to young doctors to enhance these clinical competencies and educates nursing staff with primary emphasis on postoperative complications such as delirium.

This article is her first publication as a primary investigator. Her current research focuses on perioperative care, particularly postoperative complications, with a future aim of further advancing her research in optimizing postoperative protocols and improving recovery outcomes and for surgical patients in trauma and emergency care.

Geema Masson MD,

Memorial Sloan Kettering Careers, USA

Volatile Anesthesia with Propofol Infusion is Associated with Higher Postoperative Rescue Antiemetic Use Compared to Total Intravenous Anesthesia in Outpatient Plastic Breast Surgery

Abstract

General anesthesia can result in postoperative nausea and vomiting (PONV), up to 80% in high-risk populations [1]. Lowering PONV after outpatient surgery can help increase patient satisfaction and prevent prolonged discharge time in high PONV risk patients. A recent meta-analysis revealed that total intravenous anesthesia (TIVA) or combined intravenous anesthesia (CIVA) involving volatile anesthesia with subhypnotic propofol infusion can lead to less PONV when compared to general anesthesia combining volatile anesthesia with opioids. Propofol infusion use was associated with a 45% decrease in rescue antiemetic use when compared to volatile anesthesia [2]. A large study of patients with varying PONV risk undergoing general surgery found that the relative risk of PONV for propofol intervention was 19% lower compared to volatile anesthesia [3]. In 2017, our surgery center implemented a standardized protocol which implemented TIVA for most patients undergoing outpatient breast reconstruction. It led to a significant reduction in PONV and extended stays due to PONV [4]. Starting in 2021 however, a higher proportion of patients began receiving CIVA. We studied whether CIVA use has led to a clinically significant increase in PONV (determined a priori) compared to TIVA.

Yawar Hussain Shah

Shaheed Mohtarma Benazir Bhutto Medical College Lyari, Pakistan Dow University of Health Sciences

The Impact of Diabetes Mellitus on Carotid Artery Stenting: An Updated Systematic Review and Meta-Analysis

Abstract

Background: Diabetes is known to influence the individuals undergoing carotid endarterectomy, however, its effect on patients undergoing carotid artery stenting is less known.

Objective/Scope: This analysis was performed to assess the impact of diabetes mellitus (DM) in patients who are undergoing carotid artery stenting (CAS) for carotid artery stenosis.

Methods: We systematically searched for PubMed, Scopus, and Cochrane Library from inception till June 2023, and high-quality studies comparing diabetic and non-diabetic patients undergoing carotid artery stenting (CAS) were selected. The primary outcome was perioperative stroke. Secondary outcomes included perioperative trans-ischemic attack (TIA)/ minor stroke, perioperative myocardial infarction (MI), perioperative mortality, and composite risk of death or stroke.

Results: In this meta-analysis, 9 studies were included with a patient population of 22,027 which included 7,176 diabetic and 14,851 non-diabetic patients who underwent CAS. Perioperative stroke studies (RR 1.03 [0.77, 1.36]; p=0.86) were insignificant. From the secondary outcomes, perioperative TIA/minor stroke (RR 1.35 [0.87, 2.12]; P=0.18), perioperative MI (RR 1.01 [0.80, 1.29]; P=0.92), perioperative mortality (RR 1.08 [0.68, 1.71]; P=0.75), composite risk of death or stroke (RR 1.32[0.82, 2.12]; P=0.25) were insignificant.

Mookda Nivaarrarsuwonnakul, MD

Division of Surgery, Trang Hospital, Trang, Thailand

Factors associated with false positive fecal immunochemical tests in Trang colorectal cancer screening program population

Abstract

Background & Objective: Early detection of Colorectal cancer (CRC) has emerged as an important global issue. Since 2018, fecal immunochemical tests (FITs) have been offered as a primary screening test for colorectal cancer (CRC) by the Thai National Health Service plan despite their varied accuracy according to various factors. The primary aim of this study was to identify demographic factors associated with false-positive (FP) FIT results in CRC screening in the Trang population. The secondary aim was to report the outcomes of the screening program in Trang province.

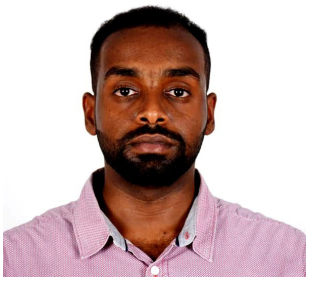
Methods: The data of all 542 participants in Trang population with positive FIT tests from the CRC screening program conducted at Trang Hospital between 1 October 2021 and 28 February 2023 were retrospectively reviewed. Of these, 347 with complete colonoscopy studies were analyzed. Patients' characteristics, colonoscopy findings, and pathologic data were recorded. Univariable and multivariable logistic regression analysis was performed to determine factors associated with FP FIT results.

Results: Among 347 participants who showed positive FIT with complete colonoscopy for CRC screening, 33 participants (9.5%) had advanced colorectal neoplasia (ACRN), and 314 participants (90.5%) had FP FIT results (no ACRN). The participants aged under 65 had a higher rate of FP results than the older age group. Female gender and aged under 65 were two factors associated with false positivity. Multivariable logistic regression showed that age < 65 was the only independent risk factor associated with FP FIT results in multivariate analysis (OR= 2.81; 95% CI 1.24-6.35; p= 0.013).

Conclusion: FP FIT results in the Trang population were relatively high. The age <65 is a significant factor associated with FP FIT results. This result can be used as a piece of evidence to optimize CRC screening strategies.

Biography

Dr. Mookda studied medicine at Chiang Mai University, Thailand. After graduating in 2010 she was an Intern, and surgical Resident at Chiang Mai University Hospital. She received her Thai Board of Surgery diploma from the Medical Council of Thailand in 2015. Her current work is as a clinical specialist of general surgery at Trang Hospital.



Alsadig Suliman

Department of General Surgery, Sudan Medical Specialization Board, Sudan

Challenges in Diagnosis and Management of Invasive Ductal Carcinoma in Axillary Ectopic Breast Tissue

Abstract

Ectopic breast tissue (EBT) is breast tissue located outside the normal anatomic boundaries of the breasts, developing due to incomplete embryological regression of the mammary ridges. EBT can develop anywhere along the milk line, with the axilla being the most common site. While generally benign, EBT can undergo malignant transformation. This case report discusses a 24-year-old female with locally advanced invasive ductal carcinoma in the axillary EBT, highlighting its clinical presentation, diagnostic process, and management in a resource-limited setting. The patient underwent wide local excision and axillary lymph node dissection followed by adjuvant chemotherapy and radiotherapy, achieving a favorable short-term outcome. This case underscores the importance of considering EBT in differential diagnosis of axillary masses and the need for tailored treatment strategies in such settings.

Biography

Alsadig Suliman is a quality improvement specialist and general surgery resident at the Sudan Medical Specialization Board. He has published more than 7 papers in reputable journals and has played a key role in advancing surgical techniques in his country. With a strong interest in AI in surgery, he focuses on implementing innovative techniques tailored to low-resource settings.

Karen L. Fleming, MD

University of California San Francisco School of Medicine, USA

Anesthesia in Neurodivergent Pediatric Patients

Abstract

Unique to pediatric anesthesia is the frequency with which patients with autism spectrum disorder (ASD), Developmental Delay (DD), Intellectual Disabilities (ID), and Congenital Malformations (CM) present for surgical procedures. Due to these patient's complex and varied medical conditions, multiple visits to the hospital may result in stress, anxiety and apprehension toward medical professionals. Typically, patients with ASD, DD, and ID thrive in familiar surroundings with fidelity to a daily routine. Therefore, the disruption and fear associated with a hospital visit with multiple practitioners needing to communicate with the patient and family, may precipitate a complete decompensation of the patient. A review of the literature has shown that there has not been a standardized approach to appropriately care for patients with ASD, DD, and ID in the perioperative period. However, we look to provide insight into the most current practices in treating patients with ASD, DD and ID in the perioperative period, and give examples of how our institution (University of California at San Francisco Department of Anesthesia and Perioperative Care) implemented and approaches care for our most vulnerable patients.

Biography

Dr. Fleming finished her medical degree at the University of Illinois Chicago and completed her Fellowship in Pediatric Anesthesia at the University of Texas Health Science Center Houston. She currently practices in Oakland, California as an Associate Professor of Pediatric Anesthesia, where she enjoys a variety of cases, including Level 1 Trauma cases. Her passion for academic medicine has led her back to her hometown of Oakland, California, where she frequently interacts with students at every level, from undergraduate level students to fellowship trainees. Dr. Fleming enjoys the challenge of working with neurodivergent patient populations and delivering competent and comforting care to all those she interacts with.

Dr Saurabh Mittal MD, DNB, DM

3rd year Organ Transplant Anaesthesia and Critical Care, India

Perioperative management of 6-way simultaneous paired kidney exchange transplantation- An Observational Study

Abstract

Objective: Presence of donor specific antigens (human leukocyte antigen incompatibility) leads to positive T cell or B cell cross-match. Kidney transplant after desensitization protocols not only poses a financial burden on the patients but also there is an increased rate of infections and graft rejection. Paired kidney exchange is cost effective and offers better postoperative graft outcome.

Methods: We included six pairs of kidney transplant donor and recipient for 6-way simultaneous paired kidney exchange transplantation. These patients were ABO incompatible or human leukocyte antigen (HLA) incompatible or both.

Results: All patients underwent transplant in a single day without any perioperative surgical and anesthesia complications except for need of mechanical ventilation in one patient in postoperative care unit. Graft function was excellent in all recipients.

Conclusion: This is the first 6 way simultaneous kidney exchange transplantation in the north-western region of India. Inclusion of multiple donors and recipients for paired exchange kidney transplant, although challenging but increase the donor pool, decrease the waiting time and financial constraints.

Biography

- Certification in ccepc course
- WFSA Scholar 2024
- Part of wfsa global anaesthesia mentoring programme 2024
- 14 national and international publications in Pubmed indexed journals

Ansu Royit

St. Thomas College, Palai, Arunapuram – 686574, Kerala, India

Neurofinance and the Psychology of Investing: Understanding Decision- Making in Financial Markets

Abstract

The Indian equity market has experienced significant changes over the past two decades, with the financial crisis in 2008-2009, a massive fall in return in 2009-2010, and a hike in return in 2010-2012. The COVID-19 pandemic has also caused extreme volatility and increased trade volume, causing asset price anomalies. The excessive buying and selling pressure of irrational investors will influence the equity market's volatility to a great extent. Investors interpret such a hike in stock market volatility as a risk to their equity investments. Significant impact can be seen in the benchmark index prices during the outbreak of the health crisis. Investors' perception during volatile periods is to protect their portfolios at a low cost. Investors interpret these fluctuations as risks to their investments, leading to the importance of derivative instruments, particularly options, for economic risk mitigation. Options trading can help hedge the risk involved in unpredictable price movements at a low cost. Accurate volatility forecasts enable investors to protect their investments and profit from volatility trading strategies during volatile periods. However, the cost concern, profit motive, and loss aversion influenced by neurotransmitters, such as dopamine and serotonin, also influence investment decisions. This study aims to determine the influence of these neurotransmitters on investment decision-making during volatile periods in the equity market.

Biography

I am Dr. Ansu Royit. Presently, completed research at the Department of Commerce, St. Thomas College, Palai, Kerala, India (Ph.D. awarded on 19th August 2024). I have completed M.Phil. in Commerce from the University of Kerala. I am a Post Graduate in Commerce with 92.75% and qualified UGC NET in the year 2017.

I am interested in handling stock market data, especially options data. I have done my PG project in the area of options (Violations of the monotonicity property in Indian options market), M.Phil. dissertation entitled 'Put-Call Parity violations and arbitrage opportunities in Indian options market' and currently doing Ph.D. in the topic 'Investor Sentiments and Volatility Forecasts: Performance Evaluation of Trading Strategies in the Indian Equity Options Market'. Thus, I have 9 years of experience in handling options data. For the purpose of research, I have obtained data on NSE NIFTY 50 index options for the period from 2001 and the current research work mainly focuses on improving the volatility forecasts using investor sentiments in optimizing the performance of conventional options trading strategies and to develop novel options trading strategies to mitigate the losses or to ensure profitability to volatility traders in the Indian equity options market. I have presented research papers in several national and international seminars, especially in the SEBI-NISM research conference and SEBI Capital Market Conference in the year 2023, World Finance Conference and WFBS. My research paper entitled 'Beware of Extreme Investor Sentiments! Indian Evidence on the Performance of Neuro-specific Options Volatility Trading Strategies on the Facets of COVID-19' is published in the Journal of Emerging Market Finance.

Hossein Mahmoodi

Shahid beheshti university of medical sciences Iran university of medical sciences, Iran

Common types of brain tumor and their management

Abstract

Brain tumors present a complex challenge in the field of oncology, characterized by abnormal growths of cells within the brain or surrounding tissues. These tumors can be classified into primary, originating in the brain, and secondary, resulting from metastasis from other parts of the body. Current estimates suggest that brain tumors account for approximately 1.4% of all new cancer cases, with an incidence rate of 7.2 per 100,000 people annually, highlighting the necessity for ongoing research and improved management strategies.
Statistically, brain tumors are more frequently diagnosed in adults aged 45-64, yet they remain a leading cause of cancer-related mortality in children. The World Health Organization (WHO) classifies brain Gliomas, meningiomas, and pituitary adenomas are among the most common types, each presenting unique clinical challenges.

Management of brain tumors is multidisciplinary and has evolved over the years. Standard treatment modalities include surgical resection, radiation therapy, and chemotherapy, often employed in combination to enhance patient outcomes. The approach to management is heavily influenced by tumor type, location, patient age, and overall health. For example, surgical excision is often the first line of treatment for accessible tumors, aiming for maximal In conclusion, brain tumors pose significant clinical challenges, necessitating a multifaceted approach to treatment and management. The integration of emerging therapies, coupled with robust statistical analysis and patient-centered care, will be pivotal in improving outcomes for this diverse patient population. Ongoing research into the biology of brain tumors and innovative treatment modalities will ultimately pave the way for more effective interventions and enhance the quality of life for patients affected by these formidable conditions.

Biography

I'm the best researcher student in basic neuroscience ,neurology and neurosurgery in Iran and one of the bests in the world.I'm the Prof.guive sharifi's assisstant and I'm working on 12 articles.I observed and participated in more than 400 surgeries on brain and spinal cord.I was involved in more than 1200 neurological patiants and totally I was involved in treatment of more than 2000 patients in neurology and neurosurgery.

Kavin Raj Purushottaman

James Cook University Hospital, United Kingdom

Day case cervical spine surgery – A retrospective case series

Abstract

Objective

This study aims to evaluate the safety and efficacy of day case cervical spine surgery, specifically Anterior Cervical Discectomy and Fusion (ACDF), in reducing hospital length of stay (LOS) without compromising patient outcomes.

Introduction

Day case cervical spine surgery has the potential to reduce waiting times and the risks associated with prolonged hospital stays. Typically, the LOS for cervical spine surgery is ≥24 hours, with post-operative x-rays performed on the first day. The National Getting It Right First Time initiative promotes day-case posterior lumbar decompression and discectomy, and data from the United States demonstrates the safety of day-case ACDF. However, there is limited data regarding this practice within the United Kingdom.

Methods

A retrospective review of theatre databases was conducted for all ACDF and cervical disc replacement procedures performed between 2017 and 2022. All the cases performed under Consultant Neurosurgeons in JCUH were selected and categorised into two groups based on LOS: <24 hours (day-case) and ≥24 hours (inpatient). Electronic patient records were reviewed to collect data on demographics, LOS, readmission and/or re-operation within 30 days, and symptom status at follow-up.

Results

A total of 319 cases were identified. Of these, 88% had a LOS of ≥ 24 hours, while 12% were LOS < 24 hours.

In the LOS ≥ 24 hours group, there is a slight female predominance at a ratio of 1.2:1, whereas

in the LOS < 24 hours group, there is a slight male predominance at a ratio of 1.1:1
No patients in the LOS < 24 hours group had a drain.
In the LOS < 24 hours group, 84.2% had symptom resolution vs 46.6% in the LOS ≥ 24 hours group, with p value of 0.000004 (< 0.05), suggesting a statistically significant association between LOS and symptom resolution.
In the LOS ≥ 24 hours group, 2% were readmitted within 30 days and 1% were re-operated within this time frame whereas in the LOS < 24 hours group, 3% were readmitted and no patients were re-operated within this time frame. The main cause of this is hematoma, pneumonia & dysphagia.
All day-case surgeries were single-level procedures, with intraoperative x-rays performed to check cage positions.

Conclusion
Day case ACDF surgery proved to be safe and produced outcomes comparable to inpatient cases. Further cost-analysis is needed to evaluate the economic benefits of this approach. Optimal patient selection, the use of intraoperative x-rays, and the avoidance of drains where safe may facilitate effective day case ACDF surgery.

Biography

Mr Kavin is a current final year medical student from Newcastle University, United Kingdom with profound interest in Neurosurgery and is expected to graduate in July 2025. He was awarded Merit for his outstanding academic performace for multiple academic years. He works closely with the Department of Neurosurgery, James Cook University Hospital, which is where he enhanced both his clinical and surgical skills under the supervision of experienced Consultant Neurosurgeons. He also gained neurosurgical experience in India & Nepal. As he is Malaysian, he conducted a nationwide survey on the perceptions of neurosurgery as a career choice among final year medical students studying in Malaysia. Adding on to his dedication to this speciality, he was the International Ambassador for Neurology & Neurosurgery Speciality Interest Group (NANSIG) and member of world-renowned socieites such as Society of British Neurological Surgeons (SBNS), Americal Association of Neurological Surgeons (AANS) and European Association of Neurosurgical Societies (EANS).

Sneha Balasubramanian

Cancer Institute, (WIA), Adyar, Chennai, India

Behind the mask: Parkinson's disease and depression

Abstract

Parkinson's disease (PD) is a common, prevalent neurodegenerative disease. It is mainly characterized by its motor symptoms like rigidity, tremors, and bradykinesia. Still, it can also manifest with non-motor symptoms (NMS), of which depression is the most frequently occurring and can impair the quality of life. Yet, it gets overlooked and goes untreated because of the significant overlap in their clinical features, hence making the diagnosis difficult. Furthermore, there is limited data on the availability of appropriate criteria for making the diagnosis of depression in PD patients, as it can occur with varying expressions throughout the course of PD or it can also precede it. This review article has included a brief discussion on the diagnosis of depression in PD patients and their overlapped clinical manifestations. Understanding the mechanisms underlying the disease processes of PD and depression and the pathways interconnecting them gives better knowledge on devising treatment options for the patients. Hence, the interlinking pathogenesis of depression and PD, along with their various traditional and newer pharmacological and non-pharmacological treatment options and their relative efficacies, have been discussed.

Biography

Sneha Balasubramanian completed her MBBS from the Madras Medical College (MMC) affiliated with Tamil Nadu M.G.R. University and Rajiv Gandhi Government General Hospital (RGGGH) in India in 2023. During this time exposure to several patients with Parkinson's Disease with Depression behind their mask-like faces led to this review paper focusing in-depth on the topic to bring notice and also to provide holistic care inclusive of the emotional and mental health of those battling this neurodegenerative disease. Currently, I work as a full-time Research Scholar at the Cancer Institute, Adyar to gain insights into research as well as medical oncology.

Sneha Ranjan

Indian Institute of Information Technology Allahabad

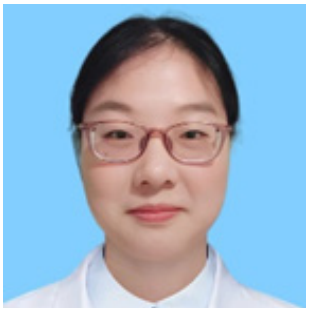
Trans-differentiation of WJMSCs into neurons upon treatment with growth factor- ATRA

Abstract

Mesenchymal Stem Cells (MSCs) are a multi-potent cell line capable of differentiating into various cell types, with neuronal differentiation being one of the most extensively studied. The ability of MSCs to differentiate into different types of neurons makes them promising candidates for stem cell therapy. This study focuses on the trans-differentiation of Wharton's Jelly Mesenchymal Stem Cells (WJMSCs) into neurons by inducing differentiation using growth factor such as All-trans Retinoic Acid (ATRA). The effectiveness of the differentiation was further evaluated by assessing the morphometric analysis. The induction process with ATRA demonstrated significant neuronal morphology, including neurite extension, synaptic connections confirming successful neuron formation. These in vitro findings hold potential for advancing treatments for neurological disorders.

Biography

Sneha Ranjan, a Research Scholar in the Department of Applied Sciences at the Indian Institute of Information Technology,Allahabad, has published three papers during her research tenure. Additionally, several of her papers are currently under review and are subjected to be published by March 2025.



Ying Liu

Zhejiang University School of Medicine

APOE2 protects against Aβ pathology by improving neuronal mitochondrial function through ERRα signaling

Abstract

Background: Alzheimer's disease (AD) is a progressive neurodegenerative disease and apolipoprotein E (APOE) genotypes (APOE2, APOE3, and APOE4) show different AD susceptibility. Previous studies indicated that individuals carrying the APOE2 allele reduce the risk of developing AD, which may be attributed to the potential neuroprotective role of APOE2. However, the mechanisms underlying the protective effects of APOE2 is still unclear.

Methods: We analyzed single-nucleus RNA sequencing and bulk RNA sequencing data of APOE2 and APOE3 carriers from the Religious Orders Study and Memory and Aging Project (ROSMAP) cohort. We validated the findings in SH-SY5Y cells and AD model mice by evaluating mitochondrial functions and cognitive behaviors respectively.

Results: The pathway analysis of six major cell types revealed a strong association between APOE2 and cellular stress and energy metabolism, particularly in excitatory and inhibitory neurons, which was found to be more pronounced in the presence of beta-amyloid (Aβ). Moreover, APOE2 overexpression alleviates Aβ1-42-induced mitochondrial dysfunction and reduces the generation of reactive oxygen species in SH-SY5Y cells. These protective effects may due to ApoE2 interacting with estrogen related receptor alpha (ERRα). ERRα overexpression by plasmids or activation by agonist was also found to show similar mitochondrial protective effects in Aβ1-42-stimulated SH-SY5Y cells. Additionally, ERRα agonist treatment improve the cognitive performance of Aβ injected mice in both Y maze and novel object recognition tests. ERRα agonist treatment increased PSD-95 expression in the cortex of agonist-treatedAD-mice.

Conclusions: APOE2 appears to enhance neural mitochondrial function via the activation of ERRα signaling, which may be the protective effect of APOE2 to treat AD.

Biography

Ying Liu, Doctor of Medicine graduated from Nanjing University, China. Involved in research and medical care in the field of neurology, specialising in the diagnosis and treatment of neurological disorders such as dementia, cerebrovascular disease, and so on. Main research interests include the search for risk and protective factors for cognitive decline in diseases such as dementia and the molecular mechanisms of dementia and cerebrovascular disease.

Zarhaish Barkat Ullah

FMH college of medicine and dentistry, Lahore, Pakistan

Critical Gaps in Prehospital Care for Traumatic Spinal Cord Injuries: An Analysis and Solutions

Abstract

Background and Aims:
Traumatic spinal cord injuries (TSCI) are a significant public health challenge in Pakistan, primarily resulting from road traffic accidents, falls, and violence. Effective prehospital care is essential to improve outcomes and prevent secondary injuries. This study aims to evaluate Pakistan's current prehospital treatment protocols for TSCI patients, identify key challenges, and provide recommendations for improvement.

Methods: A narrative review was conducted to assess prehospital care practices for TSCI in Pakistan. Using the PCC (Population, Concept, and Context) framework, a comprehensive search was performed on PubMed and Cochrane Library databases for studies published until January 2024. Articles were reviewed independently by two reviewers, with disagreements resolved by consensus or consultation with a third reviewer. Data extraction was conducted using a pre-designed chart to capture relevant details.

Results: The review identified critical deficiencies in Pakistan's prehospital care for TSCI patients. Timely interventions, including maintaining mean arterial pressure (MAP) > 85 mmHg, early transfusions for hemoglobin levels below 7 g/dL, and spinal or regional anesthesia, are often inadequately performed. Positioning to avoid secondary spinal insults, timely neurological assessments, and imaging protocols, such as CT scans and MRIs, are inconsistent. The lack of adherence to transfusion protocols and improper utilization of imaging further compromise care. Moreover, insufficient knowledge of Advanced Cardiovascular Life Support (ACLS) and prophylactic measures for complications like deep vein thrombosis (DVT) remains a concern.

Biography

Zarhaish Baramulla, a 3rd-year MBBS student at FMH College of Medicine and Dentistry, Pakistan, is deeply interested in neurotrauma and spinal injuries. She has actively contributed to research on traumatic spinal cord injuries and their pre-hospital care, particularly in resource-limited settings. As the Local Officer on Reproductive Health and AIDS (LORA) with IFMSA at her institute, Zarhaish is also engaged in global health initiatives, focusing on enhancing healthcare delivery and promoting equity in medical education. Her work reflects a commitment to advancing knowledge and improving outcomes in neurotrauma care.