

ANNUAL REPORT

[1 APRIL 2020 - 31 MARCH 2021]

RESEARCH at Lata Mangeshkar Medical Foundation's Deenanath Mangeshkar Hospital and Research Centre Pune, Maharashtra, India



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DEENANATH MANGESHKAR HOSPITAL AND RESEARCH CENTRE, PUNE, M.S., INDIA

PATRON, SUPPORT and DIRECTOR

Dr. Dhananjay S. Kelkar

ANNUAL REPORT 2020-21 – CONTRIBUTIONS

▪ *Dr. Vijayanti V. Pethe*

Content and design

▪ *Dr. Shweta A. Chitharanjan*

Data compilation – Clinical Trial research program

▪ *Dr. Amrita P. Prayag*

Data compilation – In-house research program

List of publications

▪ *Department of Academics*

Data compilation – DNB thesis program

[The data was requested from the Department of Academics]





2020–A uniquely challenging year... a sanguine outlook for 2021



Research is recognized as a priority area and is an integral part of the mission at DMHRC. The consultants and staff from various clinical departments, clinical research coordinators and students across the hospital actively engage in in-house and sponsored research projects and programs.

I am releasing the report that summarizes and captures our research proceedings and endeavors during the Covid-battered year.

FY 2020 was an unprecedented year that began with emergence of the sweeping Covid-19 outbreak that quickly turned into a global pandemic earlier in March. The world grappled in real time navigating the everyday challenges in the wake of the insidious contagion, that hugely impacted the scientific and medical community at large. As well, disruptions and impediments in research, research practices and landscape – including patient care in research and beyond – were witnessed and experienced across the globe. The very thrust and ensuing insufferable health crisis brought to the fore the dire need for research. Deemed essential and necessary, a subset of our consultants with expertise in diverse therapeutic areas embarked on Covid-pivoted research as enlisted in the report. Despite the ongoing pandemic challenges and palpable uncertainty into the foreseeable future, generation of scientific and medical knowledge through research, in Covid and non-Covid afflictions, will continue to play a critical role as efforts are underway worldwide, at a breakneck speed, to find preventive and therapeutic solutions to tame the pandemic and its profound impact.

Deenanath Mangeshkar Hospital (DMH) has been a Covid Care Center since the start of the outbreak earlier in 2020, surging the patient care and time demands from our doctors, nurses and paramedics across the hospital. An internal Covid taskforce was quickly established under the directive of our Medical Director – Dr. Dhananjay S. Kelkar to ensure rapid and safe triage of patients. Needless to say, our doctors were relentless and worked feverishly to avert a potential hospital bedlam during the early peak of Covid scourge. Against this backdrop, I would like to sincerely thank all doctors and healthcare frontliners for their courage and resilience in fighting the outbreak at DMH. As well, I wish to extend my appreciation for the consultants for their ability to maintain research and academic commitments during these extraordinary times amid the deluge of Covid cases.



Forwarding into 2021, DMH has also been one of the Covid vaccination centers in the city of Pune. Heeding the local guidelines, Dr. Kelkar gave a lucid account into the logistical aspects and vaccination protocol at DMH, for healthcare staff and general public, in a widely available YouTube video released earlier in February. Notably, vaccines have been the life-affirming milestone and a miracle in scientific history in this pandemic having been developed in a record time. Thanks to the phenomenal ingenuity of the global biomedical community that actionable jabs are already into millions of arms worldwide and that potential adaptable vaccines are in the works to combat the menacing coronavirus variants. Understandably, vaccines are not a panacea for the pandemic; however, alongside collective anti-Covid public health measures, we can remain hopeful for a long-awaited return to pre-pandemic normalcy in all aspects of life – including the research arena – as we head into 2021.

Last but not the least, we wish to earnestly thank and appreciate the efforts and time of many individuals who have contributed to this report including various clinical department heads, coordinators, clinical fellows, administrators, and of note, research consultants.

We wish the readership a safe 2021!

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“Leading the way to the future of personalized medicine through meticulous health research – and best practices at DMHRC”



OUR MISSION –

Our mission is to promote scientifically sound and ethical health research in the best interest of patient care

OUR VISION –

Our vision is to advocate and deliver health research to high degree of merit and quality for the benefit of patients at large.

DEPARTMENTAL ORGANIZATION

OUR LEADERSHIP –

RESEARCH OPERATION AND PRIORITIES

Patron, support and Director [HOI] – Dr. Dhananjay S. Kelkar (2001)

Assistant Director, Research – Dr. Vaijayanti V. Pethe (2013)

In-charge, Clinical trial research program (CTR) – Dr. Shweta A. Chitharanjan (2002)

In-charge, In-house research program [IHR, Regulation] – Dr Amrita P. Prayag (2018)

OUR STAFF –

Dr Deepali Patil, (Clinical Research Coordinator, 2015)

Dr Smita Sawant, (Clinical Research Coordinator, 2015)

Dr Asmita Shembekar, (Clinical Research Coordinator, 2017)

Mrs Snehal Jadhav, (Clinical Research Coordinator, 2017)

Dr Tejashree Patole, (Clinical Research Coordinator, 2017)

Ms Madhura Shirolkar, (Clinical Research Coordinator, 2018)

Mrs Manisha Ghumatkar, (Clinical Research Coordinator, 2019)

MPW -

Mr Sandeep Bhosale (Multi Purpose Worker, 2007)

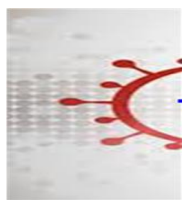


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Our Registrations / Accreditations





OUR REGISTRATIONS/ACCREDITATIONS FOR CLINICAL RESEARCH – IN-HOUSE PROGRAM, CLINICAL TRIAL RESEARCH PROGRAM – AND DNB DEGREE PROGRAM

IN-HOUSE RESEARCH PROGRAM – Biomedical and Health Research

A] We are granted SIRO registration from DSIR with renewal from April 2020 through March 2023.

B] Ethics Committee (BMHR) is provisionally registered with Department of Health Research, ICMR, New Delhi (December 2019)

CLINICAL TRIAL RESEARCH PROGRAM –

A] Our IEC registration validity from DCGI (CDSCO, New Delhi) runs from April 2019 through March 2022 [Re-Registration number – ECR/15/Inst/Maha/2013-RR19]

B] The Ethics Committee of DMHRC has been granted accreditation from NABH –
The validity of accreditation runs from January 21st 2018 through January 20th 2021
The renewal of accreditation is currently underway.

DNB THESIS PROGRAM –

25 Clinical departments at DMH have been accredited by National Board of Examinations, New Delhi.

The list of departments is included in SOP – BMHR document.

(The data on thesis projects was requested from the Department of Academics)



Selected publications



SELECTED PUBLICATIONS – APRIL 1, 2020 – MARCH 31, 2021

1. Rathore C., Baheti N., Bansal AR., Jabeen SA., Gopinath S., Jagtap S., Patil S., et al (2021)
Impact of COVID-19 pandemic on epilepsy practice in India: A tripartite survey
Seizure, 86 : 60-67

Abstract:

Objective: To assess the impact of ongoing COVID-19 pandemic on epilepsy care in India. **Methods:** We conducted a three-part survey comprising neurologists, people with epilepsy (PWE), and 11 specialized epilepsy centers across India. We sent two separate online survey questionnaires to Indian neurologists and PWE to assess the epilepsy practice, seizures control, and access to care during the COVID-19 pandemic. We collected and compared the data concerning the number of PWE cared for and epilepsy procedures performed during the 6 months periods preceding and following COVID-19 lockdown from epilepsy centers. **Results:** The survey was completed by 453 neurologists and 325 PWE. One third of the neurologist reported >50 % decline in outdoor visits by PWE and EEG recordings. The cumulative data from 11 centers showed 65-70 % decline in the number of outdoor patients, video-EEG monitoring, and epilepsy surgery. Working in a hospital admitting COVID-19 patients and use of teleconsultation correlated with this decline. Half of PWE had postponed their planned outpatient visits and EEG. Less than 10 % of PWE missed their antiseizure medicines (ASM) or had seizures due to the nonavailability of ASM. Seizure control remained unchanged or improved in 92 % PWE. Half of the neurologists started using teleconsultation during the pandemic. Only 4% of PWE were afflicted with COVID-19 infection. **Conclusions:** Despite significant decline in the number of PWE visiting hospitals, their seizure control and access to ASMs were not affected during the COVID-19 pandemic in India. Risk of COVID-19 infection in PWE is similar to general population.

2. Mohanty N, Thapa BR, Mathai J, Pai U, Mohanty N, Biradar V, Jog P, Prabhu P. (2021)
Low Osmolarity Oral Rehydration Salt Solution (LORS) in Management of Dehydration in Children.
Indian Pediatr. 2021 Mar 15;58(3):266-272. (2021)

Abstract:

The IAP last published the guidelines "Comprehensive Management of Diarrhea" in 2006 and a review in 2016. The WHO in 2002 and the Government of India in 2004 recommended low osmolarity rehydration solution (LORS) as the universal rehydration solution for all ages and all forms of dehydration. However, the use of LORS in India continues to be unacceptably low at 51%, although awareness about ORS has increased from a mere 14% in 2005 to 69% in 2015. Availability of different compositions of ORS and brands in market added to the confusion. The Indian Academy of Pediatrics constituted a panel of experts from the fields of pediatrics, pediatric gastroenterology and nutrition to update on management of dehydration in children with particular reference to LORS and issue a current practice guideline. The committee met twice at CIAP HQ to review all published literature on the aspect. Brief presentations were made, followed by discussions. The draft paper was circulated by email. All relevant inputs and suggestions were incorporated to arrive at a consensus on this practice guideline. To summarize latest literature on ORT and empower pediatricians, particularly those practicing in rural areas, on management of dehydration by augmenting LORS use. It was stressed that advantages of LORS far out-weigh its limitations. Increased use of LORS can only be achieved by promoting better awareness among public and health-care providers across all systems of medicine. LORS can also be useful in managing dehydration in non-diarrheal illness. More research is required to modify ORS further to make it safe and effective in neonates, severe acute malnutrition, renal failure, cardiac and other co-

morbidities. There is an urgent need to discourage production and marketing all forms of ORS not in conformity with WHO approved LORS, under a slogan "One India, one ORS".

3.Kurwale NS, Patil SB, Jagtap SA et al (2021)

Failed Hemispherotomy: Insights from Our Early Experience in 40 Patients

World Neurosurg, 146 : e685 - 690

Abstract:

Objective: To study the factors responsible for failure of hemispherotomy and outcomes of revision surgery. The effect of the surgeon's learning curve on failures was also analyzed. **Methods:** Forty consecutive patients, who underwent functional hemispherotomy through a 4-year period, from the inception of the single-surgeon epilepsy surgery program, were analyzed. **Results:** A total of 47 functional hemispherotomies were performed in the study period in 40 patients (7 revision surgeries on 6 patients). Mean age of the cohort was 9.45 ± 14.84 years and it included 7 infants (<2 years). Of the 9 patients (23.5%) who failed the first procedure, 6 qualified for revision surgery, all of whom belonged to the cohort of the first 15 patients treated during the first 2 years of the program. Hemimegalencephaly was the most common disease (n = 4). Ipsilateral temporal stem (n = 3), frontobasal connections (n = 2), splenium of corpus callosum (n = 2), and posterior insula (n = 2) were residual undisconnected substrates identified for revision on imaging. The substrates for failure were obvious in 5/6 patients and resulted from incomplete disconnection, implying surgical inadequacy. At the mean follow-up of 30 ± 13.17 months (range, 13-55 months), 35 of 40 patients (87.5%) remained seizure free (Engel class Ia), including 4/6 patients who underwent redo surgery. Revision did not benefit the remaining 2 patients (Engel class III). There was no mortality. **Conclusions:** Surgical revision is more common in hemimegalencephaly and in the early days of a surgical program. Affirmative neuroimaging improves the outcomes of subsequent revision surgery.

4.Patil P, Lalwani P, Vidwans H, Kulkarni S, Bais D, et al. (2021)

A multidimensional functional fitness score has a stronger association with type 2 diabetes than obesity parameters in cross sectional data.

PLoS One, 16 (2): e0245093

Abstract:

We examine here the association of multidimensional functional fitness with type 2 diabetes mellitus (T2DM) as compared to anthropometric indices of obesity such as body mass index (BMI) and waist to hip ratio (WHR) in a sample of Indian population. We analysed retrospective data of 663 volunteer participants (285 males and 378 females between age 28 and 84), from an exercise clinic in which every participant was required to undergo a health related physical fitness (HRPF) assessment consisting of 15 different tasks examining 8 different aspects of functional fitness. The odds of being diabetic in the highest quartile of BMI were not significantly higher than that in the lowest quartile in either of the sexes. The odds of being a diabetic in the highest WHR quartile were significantly greater than the lowest quartile in females (OR = 4.54 (1.95, 10.61) as well as in males (OR = 3.81 (1.75, 8.3)). In both sexes the odds of being a diabetic were significantly greater in the lowest quartile of HRPF score than the highest (males OR = 10.52 (4.21, 26.13); females OR = 10.50 (3.53, 31.35)). After removing confounding, the predictive power of HRPF was significantly greater than that of WHR. HRPF was negatively correlated with WHR, however for individuals that had contradicting HRPF and WHR based predictions, HRPF was the stronger predictor of T2DM. The association of multidimensional functional fitness score with type 2 diabetes was significantly stronger than obesity parameters in a cross sectional self-selected sample from an Indian city.

5.Rajhans PA and Godavarthy P. (2021)

Covid-19 Combat fatigue among the Healthcare workers: The time for retrospection and action.

Indian J Crit Care Med 25 (1), 3-5

Abstract:

The present pandemic caused by the novel coronavirus has battered the healthcare infrastructure all around the globe. The doctors, nurses, and healthcare staff-the COVID warriors-have plunged themselves in line of fire to keep the population safe and alive. Around 87,000 healthcare workers (HCWs) have been infected and 573 have died till August in India alone. With no sight of pandemic ebbing anytime soon and patient load in hospitals refusing to come down, combat fatigue has set in these HCWs. The very people whose life mission is caring for others are on the verge of collective collapse physically and emotionally. There is an urgent need to retrospect the problems faced by the HCWs in the previous months, recognize, and preventive measures initiated at the earliest to prevent further loss and burnout among these battle-hardened frontline soldiers.

6.Bapaye A, Dashatwar P, Dharamsi S, Pujari R. (2021)

Endoscopic tunneling for restoration of esophagus in a patient with a post-radiation post-cricoid complete esophageal obstruction.

Endoscopy. 2021 Mar;53(3):E96-E97

Abstract:

No Abstract Available

7.Morgaonkar VA, Patel DV et al (2021)

Embrace versus Cloth Wrap in preventing neonatal hypothermia during transport: a randomized trial

J. Perinatol, 41(2), 330-338

Abstract :

Background: We assessed the efficacy of Embrace Nest Infant Warmer versus Cloth Wrap in preventing hypothermia during short-term transport from the emergency department (ED) to the neonatal intensive care unit (NICU). Methods: Neonates weighing ≥ 1500 g coming to the ED were randomized for transport to the NICU. Axillary temperature was measured. Results: A total of 120 newborns (60 per group) were enrolled. From ED exit to NICU entry, the mean (SD) temperature increased in the Embrace group by 0.37°C (0.54), whereas it reduced by 0.38°C (0.80) in the Cloth group ($p < 0.001$). Hypothermia cases reduced in the Embrace group from 39 (65%) to 21 (35%), while it increased from 21 (35%) to 39 (65%) in the Cloth group ($p = 0.001$) from ED exit to NICU entry. The thermoregulation for 24 h after admission to the NICU was superior in the Embrace group. Conclusions: Embrace showed significantly better thermoregulation in neonates. Further studies should be done to measure its effectiveness in different environments and distances.

8.Siddiqui SS, Prabhu NR, Chaudhari HK, Narkhede AM, Sarode SV, Dhundi U et al (2021)

Epidemiology, Clinical Characteristics, and Prognostic Factors in Critically Ill Patients with Hematolymphoid Malignancy

Ind J Crit Care Med., 25 (1), 56-61

Abstract:

Objective: Despite advances in the field of oncology and intensive care, the outcomes of hematolymphoid malignancy (HLM) patients admitted to ICU are poor. This study was carried out to look at the demographic data, clinical features, and predictors of hospital mortality in these patients. Materials and methods: We prospectively studied 101 adult critically ill patients with HLM admitted to the 14-bedded mixed medical surgical ICU of a tertiary care cancer center. Out of 101 patients, end-of-life care decisions were taken in 7 patients, who were excluded from the outcome analysis. Predictors of in-hospital mortality were evaluated using univariate and multivariate analysis. Results: The ICU and in-hospital mortality recorded in our study were 48.9 and 54.3%, respectively. Neutropenia at ICU admission, Simplified Acute Physiology Score III (SAPS III) score, and mechanical ventilation (MV) within 24 hours of ICU admission were associated with in-hospital mortality on univariate analysis. On multivariate logistic regression analysis, neutropenia at



ICU admission (OR 4.621; 95% CI, 1.2-17.357) and MV within 24 hours of ICU admission (OR 2.728; 95% CI, 1.077-6.912) were independent predictors of in-hospital mortality. Conclusion: The HLM patients needing critical care have high acuity of illness, and acute respiratory failure is the commonest reason for ICU admission in these patients. In our study, the ICU survival was more than 50% and more than 45% patients were discharged alive from the hospital. We found a need for MV within 24 hours of ICU admission and presence of neutropenia at ICU admission to be independent predictors of hospital mortality in our study.

9. Bhatta S, Gandhi S, Saindani SJ, Ganesuni D, Ghanpur AD (2021)

Otorhinolaryngological manifestations of coronavirus disease 2019: a prospective review of 600 patients.

J Laryngol Otol, 135 (3), 206 -211

Abstract:

Objectives: To evaluate otorhinolaryngological manifestations of coronavirus disease 2019 infection and the time required for their resolution. **Methods:** A prospective analysis was conducted of coronavirus disease 2019 patients presenting from 1 April 2020 to 30 July 2020. The otorhinolaryngological manifestations were evaluated based on patient history. The time required for symptom resolution was evaluated separately for intensive care unit and non-intensive care unit patients. **Results:** A total of 600 patients were included in the study; 13.3 per cent required the intensive care unit and 2.2 per cent expired. The otorhinolaryngological manifestations were: sore throat (88 per cent), fever (78.8 per cent), anosmia or hyposmia (63.6 per cent), ageusia or hypogeusia (63.5 per cent), rhinorrhoea (51.3 per cent), nasal obstruction (33.5 per cent), sneezing (30.3 per cent), and breathing difficulty (18.6 per cent). The time required for symptom resolution was longest for breathing difficulty (23.6 days for intensive care unit and 8.2 days for non-intensive care unit patients). **Conclusion:** Otorhinolaryngological symptoms are one of the main presentations of coronavirus disease 2019 infection. The increased prevalence of medical co-morbidities in patients requiring intensive care unit and in deceased patients is also highlighted.

10. Rosenthal VD, Bat-Erdene I, Gupta D, Rajhans P et al (2021)

Six-year study on peripheral venous catheter-associated BSI rates in 262 ICUs in eight countries of South-East Asia: International Nosocomial Infection Control Consortium findings

J Vasc Access 22 (1), 34-41

Abstract:

Background: Short-term peripheral venous catheter-associated bloodstream infection rates have not been systematically studied in Asian countries, and data on peripheral venous catheter-associated bloodstream infections incidence by number of short-term peripheral venous catheter days are not available. **Methods:** Prospective, surveillance study on peripheral venous catheter-associated bloodstream infections conducted from 1 September 2013 to 31 May 2019 in 262 intensive care units, members of the International Nosocomial Infection Control Consortium, from 78 hospitals in 32 cities of 8 countries in the South-East Asia Region: China, India, Malaysia, Mongolia, Nepal, Philippines, Thailand, and Vietnam. For this research, we applied definition and criteria of the CDC NHSN, methodology of the INICC, and software named INICC Surveillance Online System. **Results:** We followed 83,295 intensive care unit patients for 369,371 bed-days and 376,492 peripheral venous catheter-days. We identified 999 peripheral venous catheter-associated bloodstream infections, amounting to a rate of 2.65/1000 peripheral venous catheter-days. Mortality in patients with peripheral venous catheter but without peripheral venous catheter-associated

bloodstream infections was 4.53% and 12.21% in patients with peripheral venous catheter-associated bloodstream infections. The mean length of stay in patients with peripheral venous catheter but without peripheral venous catheter-associated bloodstream infections was 4.40 days and 7.11 days in patients with peripheral venous catheter and peripheral venous catheter-associated bloodstream infections. The microorganism profile showed 67.1% were Gram-negative bacteria: *Escherichia coli* (22.9%), *Klebsiella* spp (10.7%), *Pseudomonas aeruginosa* (5.3%), *Enterobacter* spp. (4.5%), and others (23.7%). The predominant Gram-positive bacteria were *Staphylococcus aureus* (11.4%). Conclusions: Infection prevention programs must be implemented to reduce the incidence of peripheral venous catheter-associated bloodstream infections.

11. Gandhi, S., Bhatta, S., Ganesuni, D., Ghanpur, A. D., & Saindani, S. J. (2021).

Pre- and post-operative high-speed videolaryngoscopy in unilateral vocal cord paralysis following autologous fat augmentation.

American Journal of Otolaryngology - Head and Neck Medicine and Surgery, 42(2), 102878.

Abstract:

To compare high-speed videolaryngoscopy (HSV) parameters such as open quotient (OQ), amplitude symmetry index (ASI), phase symmetry index (PSI), and frequency symmetry index (FSI), of the unilateral vocal cord paralysis (UVCP) patients pre and post (after 6 months) autologous fat augmentation. This retrospective study evaluated all age and gender patients with UVCP that underwent autologous fat augmentation from July 2016 to July 2019. The OQ, ASI, PSI, and FSI were calculated from the HSV recordings by using the montage and fast Fourier transform point analysis. The pre-and post-operative means were compared using a paired student t-test, with a p-value less than 0.05 considered significant. A total of 37 patients, age 41.2 ± 11.3 years (21 to 67 years), 59.4% females and 40.6% males, were included in the study. The average duration of symptom onset was 2.3 ± 0.87 months. The post-operative mean values of OQ, ASI, PSI, and FSI following the fat augmentation were significantly improved compared to the pre-operative mean values with p-values <0.0001 , 0.0018, 0.0011, and 0.0006, respectively. There was a significant improvement in the OQ, ASI, PSI, and FSI in UVCP patients after 6 months of autologous fat augmentation, signifying an enhanced vibratory function. The ability of HSV to measure the minute details of vocal cord vibration by providing quantitative measurements has also been highlighted. The need for future prospective research with an increased sample size and longer duration of follow up is recommended.

12. Goyal ND, Chavan RK, Pahwa A, Gautam VK, Mishra N, Tripathi PK. (2020)

"OPD TRIAGE" - A novel concept for better patient management in heavily loaded orthopaedic OPDs.

J Clin Orthop Trauma. 2020 Jul;11(Suppl 4):S472-S478. (2020)

Abstract:

A heavily loaded subsidized government run OPD at tertiary care hospital normally caters 200-300 patients daily. Constant improvement in management of OPD through new policies are essential for better patient management and for proper utilization of skill, expertises and time of senior faculty. We designed a new concept of OPD TRIAGE for the same. Study was carried out on 1800 randomly selected patients, 950 each on triage & non triage interventional day. Patients were interviewed and changes in their satisfaction level were noted through a questionnaire. Senior treating faculty were also questioned about their changes in behaviour towards patient due to the intervention. On triage days around 91% patients are satisfied with professional care, depth of relationship, doctor's attitude, counselling from doctor. While on non triage days, this figure is only 51%. Regarding treating doctors, around 93% percent of the time, the consultants were more happy and enthusiastic to consult patients on OPD triage days. While on non triage days it was only 32%. The concept of OPD Triage can very efficiently be applied for better management of patients in heavily loaded government OPD setup, which will also help in proper data maintenance, increase

patients satisfaction and for efficient utilization of time, skills and expertise of the treating consultant.

13. Gautam VK, Ranade AS, Mone M, Oka GA. (2020)

A Novel Technique for the Removal of Elastic Intramedullary Nail in Pediatric Long Bones: A Technical Note.

Cureus. 2020 Aug 13;12(8):e9717. (2020)

Abstract:

Elastic stable intramedullary nails have been commonly used to treat unstable long bone fractures in children. The nail tip at the insertion site can cause problems. The nail tip should be of optimal length as a prominent nail tip or a short nail tip, or both, may cause different sets of problems. If the nail tip is short, nail removal after fracture union can be difficult and may pose challenges. A short nail tip may lead to difficulty in nail removal, longer duration of surgery, and need for special equipment for extracting the nail. Few techniques have been suggested in the past for removing elastic nail with the short tip, but all these techniques need special instruments. We describe a surgical technique using a metallic suction cannula to aid elastic nail removal. This method utilizes an easily available instrument in the operating room and does not need any special equipment.

14. Pathak S, Kumar K H V, Kulkarni O, Shah HC, Khurana A. (2020)

Modified Surgical Technique of Making Posteromedial Portal in Knee Arthroscopy Using a Radiofrequency Device.

Arthrosc Tech. 2020 Sep 29;9(9):e1381-e1388. (2020)

Abstract:

In knee arthroscopy, a posteromedial portal is used for various indications including arthroscopic posterior cruciate ligament reconstruction, posterior cruciate ligament avulsion fracture fixation, posterior medial meniscal repair, medial ramp lesion repair, and synovectomy. Making the posteromedial portal is challenging for young and even experienced surgeons. Creating the posteromedial portal in knee arthroscopy is challenging and technically demanding for surgeons because of the thick muscular cover, proximity of the neurovascular bundle, tenacious tough capsule, and excessive fat deposition in the posteromedial knee and thigh region. Access for viewing the posteromedial compartment during different procedures is made simple, safe, and replicable with this technique of creating the posteromedial portal. This article describes a simple way to create the posteromedial portal using a radiofrequency device by a modified outside-in surgical technique.

15. Tembe S, Fernandes S, Khan N, Melinkeri S, Kale V, Limaye L. (2020)

Establishment of human iPSC line from patient of Indian ethnicity carrying homozygous CD8/9 (+G) beta thalassemia mutation.

Stem Cell Res. 2020 Apr;44:101772. (2020)

Abstract:

This study shows generation of iPSCs from peripheral blood mononuclear cells (PBMNCs) of a male patient having homozygous CD 8/9 (+G) beta thalassemia (major) mutation. Cells were nucleofected with episomal vectors containing Oct4, Sox2, L-Myc, Lin28, Klf4 and p53DD (dominant negative p53 mutation). Cell line exhibited presence of pluripotency markers by immunofluorescence, flow-cytometry and PCR. The plasmids were lost from cells by subsequent passages, observed by PCR. Karyotype analysis demonstrated a stable genome. The cells had capability to differentiate into three-germ lineages in vitro. This iPSC line can be used as a tool for drug design and gene therapy studies.

16.Kalane S, Khambete N, Joshi R.

NeoBox - A Multipurpose Aerosol Box for Neonatal Care During COVID-19 Pandemic.

Indian Pediatr. 2020 Oct 15;57(10):975-976. (2020)

No Abstract Available

17.Diwekar-Joshi M, Watve M.

Driver versus navigator causation in biology: the case of insulin and fasting glucose.

PeerJ. 2020 Dec 11;8:e10396. (2020)

Abstract:

In biomedicine, inferring causal relation from experimental intervention or perturbation is believed to be a more reliable approach than inferring causation from cross-sectional correlation. However, we point out here that even in interventional inference there are logical traps. In homeostatic systems, causality in a steady state can be qualitatively different from that in a perturbed state. On a broader scale there is a need to differentiate driver causality from navigator causality. A driver is essential for reaching a destination but may not have any role in deciding the destination. A navigator on the other hand has a role in deciding the destination and the path but may not be able to drive the system to the destination. The failure to differentiate between types of causalities is likely to have resulted into many misinterpretations in physiology and biomedicine. We illustrate this by critically re-examining a specific case of the causal role of insulin in glucose homeostasis using five different approaches (1) Systematic review of tissue specific insulin receptor knock-outs, (2) Systematic review of insulin suppression and insulin enhancement experiments, (3) Differentiating steady state and post-meal state glucose levels in streptozotocin treated rats in primary experiments, (4) Mathematical and theoretical considerations and (5) Glucose-insulin relationship in human epidemiological data. All the approaches converge on the inference that although insulin action hastens the return to a steady state after a glucose load, there is no evidence that insulin action determines the steady state level of glucose. Insulin, unlike the popular belief in medicine, appears to be a driver but not a navigator for steady state glucose level. It is quite likely therefore that the current line of clinical action in the field of type 2 diabetes has limited success largely because it is based on a misinterpretation of glucose-insulin relationship. The insulin-glucose example suggests that we may have to carefully re-examine causal inferences from perturbation experiments and set up revised norms for experimental design for causal inference.

18.Maniar A, Upadhye V, Sai Prasad TR. (2020)

Identification of perineural cysts during ultrasound-guided caudal anaesthesia.

Anaesth Rep. 2020 Nov 10;8(2):e12081.

Abstract:

An 8-year-old boy was scheduled for urethral fistula correction under general anaesthesia with an ultrasound-guided caudal block. During scanning of the caudal area, we noticed two cystic structures in the caudal space in the region of the intended needle endpoint so we decided against performing the caudal block. Surgery was conducted uneventfully and a penile block was administered as an alternative for analgesia postoperatively. Radiological evaluation of the child 3 weeks later revealed the presence of perineural cysts in the sacral region. Routine use of ultrasound for caudal anaesthesia procedures may reveal unexpected anomalies in the sacral area, which could have implications for optimal patient management.

19.Gandla S, Halkud R, Siddappa KT, Murthy SP, Ray SL, Samriddhi, Greeshma P. (2020)

Thyroid Hemiagenesis and Papillary Carcinoma: a Rare Association.

Indian J Surg Oncol. 2020 Sep;11(Suppl 1):84-86

Abstract:

A 20-year-old female presented with a slowly growing solitary left thyroid nodule for 1 year. USG and CECT neck showed a 4 × 3 cm solid-cystic nodule in the left lobe of thyroid, with notable

absence of the right lobe. FNAC from the nodule was Bethesda V. Operative findings confirmed right thyroid lobe agenesis with corresponding absence of right superior thyroid vessels. The right sided RLN, ESBLN, superior and inferior parathyroids, and inferior thyroid vasculature were in their anatomical positions. She underwent standard left hemithyroidectomy. Histopathological examination revealed follicular variant of papillary carcinoma.

20. Bapaye A (2020)

Single-session endoscopic fundoplication after peroral endoscopic myotomy (POEM+F) for prevention of post gastroesophageal reflux -1-year follow-up study

Endoscopy Dec 8. doi: 10.1055/a-1332-5911.

Abstract:

Background: Peroral endoscopic myotomy (POEM) is an established treatment for achalasia cardia; however, post-POEM gastroesophageal reflux (GER) remains a significant problem. Concomitant endoscopic fundoplication following POEM (POEM + F) was recently described to reduce post-POEM GER. This single-center study reports short-term outcomes of POEM + F. **Methods:** This was a retrospective analysis of a prospectively maintained database of patients undergoing POEM + F. Abstracted data included demographics, achalasia type, pre-POEM Eckardt score, prior therapy, follow-up. Follow-up assessment was 3-monthly for 1 year and included post-POEM Eckardt score, GerdQ score, wrap integrity and esophagitis on esophagogastroduodenoscopy, and pH studies. GER was defined according to Lyon Consensus. **Results:** 25 patients underwent POEM + F (mean age 40.1 years [standard deviation (SD) 13.7]; 12 females). POEM + F was technically successful in 23/25 (92.0 %). Significant dysphagia improvement was seen in all 25 patients (mean pre- and post-POEM Eckardt scores 8.21 [SD 1.08] and 0.1 [SD 0.3], respectively; $P = 0.001$). Mean total procedure and fundoplication times were 115.6 (SD 27.2) minutes and 46.7 (SD 12.4) minutes, respectively; times reduced significantly after the initial five cases. Median follow-up was 12 months (interquartile range [IQR] 9-13). Intact wrap was seen in 19/23 (82.6 %). GER (abnormal esophageal acid exposure time [EAET]) was seen in 2/18 (11.1 %) and there was one reported GerdQ > 8. Borderline GER (asymptomatic grade A esophagitis, normal EAET) was identified in 4/22 (18.2 %). Three (12.0 %) minor delayed adverse events occurred but required no intervention. **CONCLUSIONS :** POEM + F was safe and reproducible. At 12 months' follow-up, incidence of post-POEM + F GER was low and acceptable.

21. Ichkhanian Y, Assis D, Familiari P, Bapaye A et al (2020)

Management of patients after failed peroral endoscopic myotomy: a multicenter study

Endoscopy - doi: 10.1055/a-1312-0496.

Abstract :

Background: Although peroral endoscopic myotomy (POEM) is highly effective for the management of achalasia, clinical failures may occur. The optimal management of patients who fail POEM is not well known. This study aimed to compare the outcomes of different management strategies in patients who had failed POEM. **Methods:** This was an international multicenter retrospective study at 16 tertiary centers between January 2012 and November 2019. All patients who underwent POEM and experienced persistent or recurrent symptoms (Eckardt score > 3) were included. The primary outcome was to compare the rates of clinical success (Eckardt score ≤ 3) between different management strategies. **RESULTS :** 99 patients (50 men [50.5 %]; mean age 51.4 [standard deviation (SD) 16.2]) experienced clinical failure during the study period, with a mean (SD) Eckardt score of 5.4 (0.3). A total of 29 patients (32.2 %) were managed conservatively and 70 (71 %) underwent retreatment (repeat POEM 33 [33 %], pneumatic dilation 30 [30 %], and laparoscopic Heller myotomy (LHM) 7 [7.1 %]). During a median follow-up of 10 (interquartile range 3 - 20) months, clinical success was highest in patients who underwent repeat POEM (25 /33 [76 %]; mean [SD] Eckardt score 2.1 [2.1]), followed by pneumatic

dilation (18/30 [60 %]; Eckardt score 2.8 [2.3]), and LHM (2/7 [29 %]; Eckardt score 4 [1.8]; $P = 0.12$). A total of 11 patients in the conservative group (37.9 %; mean Eckardt score 4 [1.8]) achieved clinical success. **CONCLUSION :** This study comprehensively assessed an international cohort of patients who underwent management of failed POEM. Repeat POEM and pneumatic dilation achieved acceptable clinical success, with excellent safety profiles.

22. Wanjarkhedkar P, Sarade G., Purandare B., Kelkar D. (2020)

A prospective clinical study of an Ayurveda regimen in Covid 19 patients

J Ayurveda Integr Med 19; S0975-9476(20)30098

Abstract :

The ancient Indian system of medicine, Ayurveda has a treatment for symptom complexes of a variety of diseases. One such combination of Ayurvedic medications has potential for use in COVID 19 infection, and hence a prospective study was conducted with this formulation as an add-on, in COVID positive patients in a dedicated COVID hospital. The objective of the study was to evaluate the additional benefit of an Ayurvedic regime in COVID positive patients on the basis of rate of clinical improvement. The Ayurvedic formulation was administered as an add-on to Standard of Care (SoC) in patients with mild to moderate symptoms, in this prospective, open-label, comparative study. Control group received SoC only. Patients receiving Dasamoolkaduthrayam Kashaya and Guluchyadi Kwatham in tablet form in addition to the SoC showed a faster recovery from breathlessness with reduced ageusia. Patients on the treatment group could be discharged earlier than those from the control group. Addition of Dasamoolkaduthrayam Kashaya and Guluchyadi Kwatham to SoC appeared to accelerate recovery of patients hospitalized for COVID 19 infection, in terms of reduction of symptoms and duration of hospital stay.

23. Rochweg, B., Einav, S., Chaudhuri, D. *et al.* (2020)

The role for high flow nasal cannula as a respiratory support strategy in adults: a clinical practice guideline.

Intensive Care Med 46, 2226–2237 (2020).

Abstract:

High flow nasal cannula (HFNC) is a relatively recent respiratory support technique which delivers high flow, heated and humidified controlled concentration of oxygen via the nasal route. Recently, its use has increased for a variety of clinical indications. To guide clinical practice, we developed evidence-based recommendations regarding use of HFNC in various clinical settings. We formed a guideline panel composed of clinicians, methodologists and experts in respiratory medicine. Using GRADE, the panel developed recommendations for four actionable questions. The guideline panel made a strong recommendation for HFNC in hypoxemic respiratory failure compared to conventional oxygen therapy (COT) (moderate certainty), a conditional recommendation for HFNC following extubation (moderate certainty), no recommendation regarding HFNC in the peri-intubation period (moderate certainty), and a conditional recommendation for postoperative HFNC in high risk and/or obese patients following cardiac or thoracic surgery (moderate certainty). This clinical practice guideline synthesizes current best-evidence into four recommendations for HFNC use in patients with hypoxemic respiratory failure, following extubation, in the peri-intubation period, and postoperatively for bedside clinicians.

24. Bapaye A (2020)

Large gastric hyperplastic polyps: to resect or not to resect, that is the question!

Endoscopy June 2020

No abstract available

25. Hingmire S. and Parikh P. (2020)

Welcome to the New Avatar of South Asian Journal of Cancer - 9th Year and Beyond

South Asian Journal of Cancer - 2020 Jun;9(2):69

Abstract:

South Asian Journal of Cancer (SAJC) is now in its 9th successful year. As we move to greater heights, we also move to a new publisher—Thieme Medical and Scientific Publishers Private Limited. This move is specifically selected to secure the future of SAJC with a publisher that puts quality and value above all else. While our main Web site remains unchanged (www.sajc.org), manuscripts can now be submitted at www.manuscriptmanager.net/sajc and published articles accessed at www.thieme.com/sajc. What we have achieved so far is to make the journal acceptable across the globe as well as its quality officially recognized in India and other SAARC countries. It is the official journal of SAARC Federation of Oncologists (SFO), Integrated Academic Society of Clinical Oncology (IASCO), Indian Cooperative Oncology Network (ICON), and Oncology Gold Standard (OGS). More than 600 articles are submitted to us annually and we are able to select the most appropriate high quality 25% among them for publication. Our huge network of reviewers is to be appreciated for their diligent work in ensuring that the readers and subscribers get only the best quality of manuscripts. We continue to provide open access to promote science for the benefit of humanity at large. We have now revamped the editorial team and welcome the new members. We also thank the previous team profusely—including editorial board members, diligent reviewers, authors, and all those who submitted their manuscripts to SAJC. Special thanks to the past editors of SAJC—Dr. Shweta Bansal and Dr. Vanita Noronha. They laid the foundation on which the journal has continued to prosper. Where do we see the future of oncology with respect to education in general and areas of priority for SAJC publication in particular? Clearly, our intention is to be one step ahead, for which we anticipate the future. No doubt high quality original research work will be the backbone for SAJC. Every field in oncology and related subjects will have innovations of importance, which are most welcome. We believe our readers will benefit most by addition of some novel sections—a few of them shall include cardio-oncology, medico legal issues, innovative diagnostic technology, novel therapeutics, and practical recommendations. We invite you to join hands in the SAJC journey and find a speedy and fair platform to publish your work at a fast pace. We will publish accepted articles ahead of print and make them available quickly to the global health care community.

26. Kaul, U., Das, M. K., Agarwal, R., Bali, H., Bingi, R., Chandra, S., ... Vijayaraghavan, G. (2020)

Consensus and development of document for management of stabilized acute decompensated heart failure with reduced ejection fraction in India.

Indian Heart Journal. Nov-Dec 2020

Abstract:

Ensuring adherence to guideline-directed medical therapy (GDMT) is an effective strategy to reduce mortality and readmission rates for heart failure (HF). Use of a checklist is one of the best tools to ensure GDMT. The aim was to develop a consensus document with a robust checklist for stabilized acute decompensated HF patients with reduced ejection fraction. While there are multiple checklists available, an India-specific checklist that is easy to fill and validated by regional and national subject matter experts (SMEs) is required. A total of 25 Cardiology SMEs who consented to participate from India discussed data from literature, current evidence, international guidelines and practical experiences in two national and four regional meetings. Recommendations included HF management,

treatment optimization, and patient education. The checklist should be filled at four time points- (a) transition from intensive care unit to ward, (b) at discharge, (c) 1st follow-up and (d) subsequent follow-up. The checklist is the responsibility of the consultant or the treating physician which can be delegated to a junior resident or a trained HF nurse. This checklist will ensure GDMT, simplify transition of care and can be used by all doctors across India. Institutions, associations, and societies should recommend this checklist for adaptability in public and private hospital. Hospital administrations should roll out policy for adoption of checklist by ensuring patient files have the checklist at the time of discharge and encourage practice of filling it diligently during follow-up visits.

27. Shu-Feng Wang, Peng-Cheng Li, Yun-Hao Xue, Feng Li, Aaron J Berger, Anil Bhatia (2020)
Direct Repair of the Lower Trunk to Residual Nerve Roots for Restoration of Finger Flexion After Total Brachial Plexus Injury
J Hand Surg Am., S0363-5023(20)30606-7

Abstract :

Purpose: Residual nerve root stumps have been used to neurotize the median nerve in an attempt to restore finger flexion function in patients suffering from total brachial plexus injury. However, the results have been unsatisfactory mainly because of the need to use a long nerve graft. The authors have tried to improve the quality of restored finger flexion by direct approximation of available (ruptured) ipsilateral root stumps to the lower trunk (LT). We sought to validate these results using objective outcome measures. **Methods:** This is a study of 27 cases of total posttraumatic brachial plexus palsies. In each case, the neck was explored and ruptured root stumps identified. The LT was mobilized by separating it from the posterior division and the medial cutaneous nerve of the forearm distally. The mobilized LT was then approximated directly to an ipsilateral root stump. The arm was immobilized against the trunk for 2 months. The patients were observed for return of function in the paralyzed upper limb. The presence and strength of finger flexion was measured using the British Medical Council grading. **Results:** The follow-up period was 36 to 74 months (average, 56.9 ± 13.7 months). Recovery of active finger flexion was M4 in 10 patients, M3 in 8 patients, and M2 to M0 in 9 patients. Meaningful recovery (M3 or greater) of finger flexion was achieved in 18 of 27 patients. **Conclusions:** The results of active finger flexion can be improved by direct approximation of the LT to an ipsilateral root stump.

28. David Granton , Dipayan Chaudhuri , Dominic Wang, Sharon Einav, Yigal Helviz, Tommaso Mauri, Jordi Mancebo, Jean-Pierre Frat, Sameer Jog et al (2020)
High-Flow Nasal Cannula Compared With Conventional Oxygen Therapy or Noninvasive Ventilation Immediately Postextubation: A Systematic Review and Meta-Analysis
Crit Care Med. Nov;48(11):e1129-e1136.

Abstract:

Objectives: Reintubation after failed extubation is associated with increased mortality and longer hospital length of stay. Noninvasive oxygenation modalities may prevent reintubation. We conducted a systematic review and meta-analysis to determine the safety and efficacy of high-flow nasal cannula after extubation in critically ill adults. **Data sources:** We searched MEDLINE, EMBASE, and Web of Science. **Study selection:** We included randomized controlled trials comparing high-flow nasal cannula to other noninvasive methods of oxygen delivery after extubation in critically ill adults. **Data extraction:** We included the following outcomes: reintubation, postextubation respiratory failure, mortality, use of noninvasive ventilation, ICU and hospital length of stay, complications, and comfort. **Data synthesis:** We included eight randomized controlled trials (n = 1,594 patients). Compared with conventional oxygen therapy, high-flow nasal

cannula decreased reintubation (relative risk, 0.46; 95% CI, 0.30-0.70; moderate certainty) and postextubation respiratory failure (relative risk, 0.52; 95% CI, 0.30-0.91; very low certainty), but had no effect on mortality (relative risk, 0.93; 95% CI, 0.57-1.52; moderate certainty), or ICU length of stay (mean difference, 0.05 d fewer; 95% CI, 0.83 d fewer to 0.73 d more; high certainty). High-flow nasal cannula may decrease use of noninvasive ventilation (relative risk, 0.64; 95% CI, 0.34-1.22; moderate certainty) and hospital length of stay (mean difference, 0.98 d fewer; 95% CI, 2.16 d fewer to 0.21 d more; moderate certainty) compared with conventional oxygen therapy, however, certainty was limited by imprecision. Compared with noninvasive ventilation, high-flow nasal cannula had no effect on reintubation (relative risk, 1.16; 95% CI, 0.86-1.57; low certainty), mortality (relative risk, 1.12; 95% CI, 0.82-1.53; moderate certainty), or postextubation respiratory failure (relative risk, 0.82; 95% CI, 0.48-1.41; very low certainty). High-flow nasal cannula may reduce ICU length of stay (moderate certainty) and hospital length of stay (moderate certainty) compared with noninvasive ventilation. Conclusions: High-flow nasal cannula reduces reintubation compared with conventional oxygen therapy, but not compared with noninvasive ventilation after extubation.

29. Rahatgaonkar, V., Uchale, P., and Oka, G. (2020).

Comparative Study of Smart Scope® Visual Screening Test with Naked Eye Visual Screening And Pap Test.

Asian Pacific Journal of Cancer Prevention, 21(12), 3509–3515.

Abstract:

Cervical cancer is a major contributor to mortality and morbidity in women. Naked eye visual screening (NE test) and Pap test are commonly used for cervical cancer screening. Both tests have inherent limitations like low sensitivity (Pap test) and subjectivity in interpretation, lack of permanent record and overestimation (NE test). Here, Smart Scope® visual screening test (SS test) was compared with NE and Pap tests. Smart Scope® is a small, hand-held device that captures cervical images attached to a tablet to store data. To compare SS test with Pap and NE tests. This prospective observational study was conducted at a tertiary care hospital in India, over 16 months. A total of 509 women in the age group of 25 to 65 years were included in the study as per the inclusion criteria. All the participants underwent Pap test, NE test and SS test. Screen positives on any one test were advised colposcopy and biopsy. Out of 154 screen-positive women, 49 visited for follow-up colposcopy-guided biopsy. Nine incidental biopsies of screen-negative women were included in the data. Thus, statistical analysis was carried out based on 58 available histopathology results. Out of 58 biopsies, 8 were normal, 30 were benign lesions, 18 were precancerous and 2 were cancerous lesions. SS test was found to have a sensitivity and NPV of 100% each, PPV of 45.4% and a specificity of 36.8%. Sensitivity and specificity of NE test was 90% and 39.5% respectively, PPV was 43.9% and NPV was 88.2%. Pap smear had a sensitivity of 25% and specificity of 84.2%, PPV of 45.5% and NPV of 68.08%. SS test has great potential to be a primary screening test in low-resource settings due to its better sensitivity and NPV as compared to NE and Pap tests.

30. Chaudhuri, D., Granton, D., Wang, D. X., Burns, K. E. A., Helviz, Y., Einav S. et al (2020).

High-Flow Nasal Cannula in the Immediate Postoperative Period: A Systematic Review and Meta-analysis.

Chest, 158(5), 1934–1946.

Abstract:

Studies have demonstrated that high-flow nasal cannula (HFNC) prevents intubation in acute hypoxic respiratory failure when compared with conventional oxygen therapy (COT). However, the data examining routine HFNC use in the immediate post-operative period are less clear. Is routine HFNC use superior to COT or noninvasive ventilation (NIV) use in preventing intubation in patients

postoperatively? We comprehensively searched databases (PubMed, Embase, Web of Science) to identify randomized controlled trials (RCTs) that compared the effect of HFNC use with that of COT or NIV in the immediate postoperative period on reintubation, escalation of respiratory support, hospital mortality, ICU and hospital length of stay (LOS), postoperative hypoxemia, and treatment complications. We assessed individual study risk of bias (RoB) by using the revised Cochrane RoB 2 tool and rated certainty in outcomes by using the Grading of Recommendations Assessment, Development and Evaluation framework. We included 11 RCTs enrolling 2,201 patients. Ten compared HFNC with COT and one with NIV. Compared with COT use, HFNC use in the postoperative period was associated with a lower reintubation rate (relative risk [RR], 0.32; 95% CI, 0.12-0.88; absolute risk reduction [ARR], 2.9%; moderate certainty) and decreased escalation of respiratory support (RR, 0.54; 95% CI, 0.31-0.94; ARR, 5.8%; very low certainty). Post hoc subgroup analysis suggested that this effect was driven by patients who were obese and/or at high risk (subgroup differences, $P=0.06$). We did not find differences in any of the other stated outcomes between HFNC and COT. HFNC was also no different from NIV in reintubation rate, respiratory therapy failure, or ICU LOS. With evidence of moderate certainty, prophylactic HFNC reduces reintubation and escalation of respiratory support compared with COT in the immediate post-operative period after cardiothoracic surgery. This effect is likely driven by patients who are at high risk and/or obese. These findings support postoperative prophylactic HFNC use in the patients who are at high risk and/or obese undergoing cardiothoracic surgery.

31. Kalra S., Deshmukh V., Mittal S., Joshi A., Bathla M., Phadke S (2020)

Psychocrinology

J. Pak Med Assoc., 70 (11), 2070-2071

Abstract:

Psychiatry and Endocrinology share a deep rooted, multifaceted bidirectional relationship. Both have seen a surge in cases due to change in lifestyle. Time has come where these two rapidly growing fields interact and exchange knowledge leading to emergence of Psychocrinology. This communication describes the rationale behind using the term psychocrinology, and provides an overview of its vast spectrum.

32. Mahale N, Rajhans P, Godavarthy P, et al. (2020)

A Retrospective Observational Study of Hypoxic COVID-19 Patients Treated with Immunomodulatory Drugs in a Tertiary Care Hospital.

Indian J Crit Care Med. 2020;24(11):1020-1027.

Abstract:

To describe the demographics and evaluate the clinical outcomes of hypoxic coronavirus disease-2019 (COVID-19) patients treated with different immunomodulatory (IM) drugs in a resource-limited setting. We conducted a retrospective cohort study of these patients admitted to our hospital between March 22 and May 31, 2020. Data were abstracted from multiple electronic data sources or patient charts to provide information on patient characteristics, clinical, laboratory variables, and outcomes. A total of 134 patients met the inclusion criteria and were followed up till June 7, 2020. The median age of the patients was 55.6 years (range 20–89 years) and 68% were men. At least one comorbidity was seen in 72% of the patients with diabetes (44%) and hypertension (46%) being the most common. At triage, fever (82%), shortness of breath (77%), and cough (61%) were the most common presenting symptoms. A $\text{PaO}_2/\text{FiO}_2$ ratio less than 300 was seen in 60%, and 4.5% required invasive mechanical ventilation within 72 hours of hospital admission. Five immunomodulatory agents (hydroxychloroquine, methylprednisolone, colchicine, etoricoxib, and tocilizumab) were administered in different combinations. Overall, in-hospital mortality was 26.9%, and 32% required mechanical ventilation. Around 69% of patients were discharged home. Five variables (SpO_2 , $\text{PaO}_2/\text{FiO}_2$ ratio, leucocytosis, lymphopenia, and creatinine) on admission were found to be significant in the patients who died. Our study provides the characteristics and outcomes

of hypoxic COVID-19 patients treated with IM drugs in varied combination. Five independent variables were strong predictors of mortality.

33. Kelkar D., Borse M., Godbole G., Kurlekar U., Slack M. (2020)

Interim safety analysis of the first-in-human clinical trial of the Versius surgical system, a new robot assisted device for use in minimal access surgery

Surgical Endoscopy, September 2020 [<https://doi.org/10.1007/s00464-020-08014-4>]

Abstract:

Objective: The aim of this study was to provide an interim safety analysis of the first 30 surgical procedures performed using the Versius Surgical System. **Background:** Robot-assisted laparoscopy has been developed to overcome some of the important limitations of conventional laparoscopy. The new system is currently undergoing a first-in-human prospective clinical trial to confirm the safety and effectiveness of the device when performing minimal access surgery (MAS). **Methods:** Procedures were performed using Versius by a lead surgeon supported by an operating room (OR) team. Male or female patients aged between 18 and 65 years old and requiring elective minor or intermediate gynaecological or general surgical procedures were enrolled. The primary endpoint was the rate of unplanned conversion of procedures to other MAS or open surgery. **Results:** The procedures included nine cholecystectomies, six robot-assisted total laparoscopic hysterectomies, four appendectomies, five diagnostic laparoscopy cases, two oophorectomies, two fallopian tube recanalisation procedures, an ovarian cystectomy and a salpingo-oophorectomy procedure. All procedures were completed successfully without the need for conversion to MAS or open surgery. No patient returned to the OR within 24 h of surgery and readmittance rate at 30 and 90 days post-surgery was 1/30 (3.3%) and 2/30 (6.7%), respectively. **Conclusions:** This first-in-human interim safety analysis demonstrates that the Versius Surgical System is safe and can be used to successfully perform minor or intermediate gynaecological and general surgery procedures. The cases presented here provide evidence that the Versius clinical trial can continue to extend recruitment and begin to include major procedures, in alignment with the IDEAL-D Framework Stage 2b: Exploration.

34. Anil Bhatia, Aditi Kulkarni, Pablo Zancolli, Raul Rodriguez Martinez, Jorge Clifton, Tarek El-Gammal, Alex Muset (2020)

The Effect of Age and the Delay before Surgery on the Outcomes of Intercostal Nerve Transfers to the Musculocutaneous Nerve: A Retrospective Study of 232 Cases of Posttraumatic Total and Near-total Brachial Plexus Injuries

Indian J. Plast Surg. 53(2):260-265.

Abstract :

Introduction Posttraumatic brachial plexus injuries are devastating, as the brain and spinal cord are disconnected from the upper limb. Restoration of elbow flexion has been widely recognized as the primary objective of nerve reconstruction. In the absence of utilizable (ruptured) root stumps in the neck, one has recourse only to nerve transfers. The direct transfer of intercostal nerves to the musculocutaneous nerve is one of the techniques that has been commonly employed over the past four decades. However, the outcomes of this procedure cited in the literature have varied considerably. The patient's age and the delay from the accident to surgery have been known to affect the results of nerve reconstruction operations. The authors present a study of the effect of these parameters on intercostal nerve transfers. **Methods** The data of 232 patients with total and near-total brachial plexus injuries treated by the senior author between April 1995 and December 2015 was examined. Intercostal nerve transfers were used for the restoration of biceps function in each of these patients. The outcomes were tabulated, and the correlation with the age and the delay before surgery

was examined. Results The strength of the biceps regained was better in patients younger than 30 years old and those operated upon earlier than 6 months from the accident. The differences in outcomes were found to be statistically significant ($p = 0.001$ for preoperative delay and $p < 0.005$ for the patient's age). Conclusion The results give clear proof of the significant effect of the age and preoperative delay on the outcomes of intercostal nerve transfers for restoration of biceps function. These findings can serve as pointers to help the surgeon in choosing the method of nerve reconstruction in a given case.

35. Alex Muset Lara, Anil Bhatia, Jorge Clifton Correa, Tarek Abdalla El Gammal (2020)
Intercostal Nerve Transfers to the Musculocutaneous – A Reliable Nerve Transfer For Restoration of Elbow Flexion in Birth-Related Brachial Plexus Injuries
 Indian J Plas Surg 53(2):254-259

Abstract :

Introduction There is consensus on the need for early microsurgical reconstruction in birth palsies involving three or more roots, that is, extensive partial palsies and total palsies. The fundamental principles of these operations are complete exploration and judicious use of the ruptured stumps by nerve grafting to suitable distal targets. The frequent observation of root avulsions in such cases makes it imperative to look for extraplexual nerve donors for some functions. Intercostal nerves are readily available in such patients. **Materials and Methods** This is a study of 50 patients of extensive partial and total birth palsies operated upon by the senior author between 1995 and 2010. These included 33 patients with total palsies, 16 patients with near total palsies, and one patient with C56 deficit (operated upon more than 20 years ago). These children were all operated upon between 3 and 6 months of age, except for two patients in whom surgery was delayed till a year due to the phrenic nerve deficit noted at birth. Four intercostal nerves were transferred to the musculocutaneous nerve (MCN) by direct approximation with fibrin glue. **Results** No respiratory complication was noted from the intercostal harvest. The follow-up ranged from 8 to 20 years (mean 10 years). As many as 48 of the 50 patients regained fully independent elbow flexion. In two cases, the procedure failed completely and had to be salvaged with a free functioning muscle transfer and reuse of the intercostal nerves. **Conclusion** Intercostal nerve transfers can be relied upon for restoration of elbow flexion in birth palsies. The ruptured roots can then be utilized for augmenting shoulder function in partial palsies or for hand function in total palsies.

36. Uday P Devaskar, Sudhir Waghmare,, Akshay Kharche, Shilpa U Kalane, Vishakha Haridas, Sampada Patwardhan (2020)
KIMIE: New Human Breast Milk Pasteurizer-Fully Automated, User Friendly, Cost-Effective Device for Universal Application
 Journal of Pediatrics and Infants, 3 (2), 30-37

Abstract :

Natural mother's breast milk (MBM) is the best food for all newborns especially the preterm. However, when natural MBM is not available or insufficient donor breast milk (DBM) is the second-best option. Sterilized or HSC human milk pasteurizers have been commonly used for several decades. While these devices have served the purpose, they are relatively large, expensive, require special electrical and water connections, need a large amount of water which is not recycled and an ongoing supply of disposable plastic bottles. In addition, the use of these machines requires special training. Here we describe the development of a compact, automated; user-friendly human breast milk pasteurizer (HBMP) named Kimie capable of pasteurizing small volumes of DBM. This device does not require special water plumbing, recycles water, is inexpensive and does not require FDA approval.

37. Gandhi, S., Bhatta, S., Ganesuni, D., Ghanpur, A. D., & Saindani, S. J. (2020).

Pre- and Postoperative High-Speed Videolaryngoscopy Findings in Adductor Spasmodic Dysphonia Following Transoral CO₂ LASER-Guided Thyroarytenoid Myoneurectomy.

J Voice. S0892-1997(20)30357

Abstract:

Vocal cord vibration after transoral CO₂ LASER-guided thyroarytenoid (TA) myoneurectomy in adductor spasmodic dysphonia (AdSD) patients is unclear to date. The precise vibratory patterns in AdSD patients are difficult to evaluate with routine videolaryngostroboscopy. High-speed videolaryngoscopy (HSV) is an ideal choice to evaluate such patients. This study was performed to compare pre- and postoperative, after 6 months, vocal fold vibratory onset delay (VFVOD) and closed phase glottal cycle (CPGC) in AdSD patients following transoral CO₂ LASER-guided TA myoneurectomy using the HSV. Retrospective study, conducted from January, 2016 to January, 2019, of the AdSD patients who underwent transoral CO₂ LASER-guided TA myoneurectomy using the HSV. Patient data were acquired from the hospital database to evaluate VFVOD and CPGC from HSV recordings of the patients. VFVOD was calculated as sum of prephonatory delay (PPD) and steady-state delay (SSD). The PPD and SSD were evaluated and compared separately for each patient. The MedCal Version 19.2.6 was used for data analysis. Paired sample *t* test was performed to compute the significance of the difference between the mean of the dataset. A *P* value less than 0.05 was considered significant. A total of nine patients were included in the study, out of which three were females and six were males. The average age was 45.5 ± 6.9 years. The mean of postoperative PPD (166.8 ± 22.1), SSD (76.5 ± 8.6), and CPGC (62.6 ± 4.8) were significantly less than mean of preoperative PPD (222.6 ± 22.1), SSD (97.7 ± 9.5), and CPGC (71.6 ± 5 %), with *P* values of 0.0007, 0.0001, and 0.0001, respectively. There was a significant decrease in VFVOD and CPGC posttransoral CO₂ LASER-guided TA myoneurectomy in AdSD patients after 6 months follow-up. This study also establishes efficiency of the HSV to measure the vocal cord vibration in the patients with AdSD. The primary limitations of the study were the small sample size and its retrospective nature. Future prospective studies with increased sample size can further substantiate the findings of the work performed here.

38. Tiwari, N. R., Khatib, K. I., Dixit, S. B., Rathore, P. K., Melinkeri, S., Ganapule, A., Borawake, K. S., & Mhatre, U. (2020).

Anticoagulation in COVID – 19: An Update

The Journal of Critical Care Medicine, 6(4), 217-223.

Abstract:

The novel coronavirus disease, 2019 (COVID – 19) evolved as an unprecedented pandemic. The severe acute respiratory syndrome-corona virus-2 (SARS-CoV-2) infection has been associated with significantly deranged coagulation parameters and increased incidence of thrombotic events. Deranged coagulation parameters, such as D-dimers and fibrin degradation products, can indicate a poor prognosis, and their measurement will help stratify the patients according to the disease severity, need of intensive care unit admission, and prediction of the clinical course. Gaps in understanding the natural history of the disease cause difficulties in tailoring therapies and optimizing the management of patients. Lack of specific treatment further complicates this situation. While thrombotic events can cause significant morbidity and mortality in patients, a focused approach to the prevention and treatment of venous thromboembolism (VTE) can, to a great extent, decrease the disease burden caused by thrombotic diseases. Pharmacological prophylactic anticoagulants and mechanical therapies such as pneumatic compression devices can help prevent venous thromboembolism and other thrombotic events. Thrombotic events due to COVID-19, their prevention and management, are the focus of this paper, with the prospect of providing insights into this relatively unexplored area.

39. Soman R, Eashwernath R. (2020)

Bacteremia due to Streptococcus gallolyticus: A Name with an Ominous Significance?

Indian J Crit Care Med. 2020;24(10):901-902.

Abstract:

Streptococcus bovis is an underrecognized agent of systemic infections. It underwent reclassification into different subtypes and is currently termed as *Streptococcus gallolyticus*. Bacteremia due to *S. gallolyticus* has been traditionally associated with colon cancer or hepatobiliary disease and can result in endocarditis. Detection of *S. gallolyticus* in blood cultures prompts a thorough clinical evaluation in order to clarify the source of the bloodstream infection and the presence of complications. Subspeciation is crucial to understand the disease association, which is now possible with the use of phenotypic detection methods, such as, Vitek 2. The retrospective study by Niyas et al. serves to call attention to this organism and optimal approach to management.

40. Agrawal, M., Saraf, S., Saraf, S., Murty, U. S., Kurundkar, S. B., Roy, D., et al (2020)

In-line treatments and clinical initiatives to fight against COVID-19 outbreak.

Respiratory Medicine. 2020 Oct 17;106192

Abstract:

In December 2019, when the whole world is waiting for Christmas and New Year, the physicians of Wuhan, China, are astounded by clusters of patients suffering from pneumonia from unknown causes. The pathogen isolated from the respiratory epithelium of the patients is similar to previously known coronaviruses with some distinct features. The disease was initially called nCoV-2019 or SARS-nCoV-2 and later termed as COVID-19 by WHO. The infection is rapidly propagating from the day of emergence, spread throughout the globe and now became a pandemic which challenged the competencies of developed nations in terms of health care management. As per WHO report, 216 countries are affected with SARS-CoV-19 by August 5, 2020 with 18, 142, 718 confirmed cases and 691,013 deaths reports. Such huge mortality and morbidity rates are truly threatening and calls for some aggressive and effective measures to slow down the disease transmission. The scientists are constantly engaged in finding a potential solution to diagnose and treat the pandemic. Various FDA approved drugs with the previous history of antiviral potency are repurposed for COVID-19 treatment. Different drugs and vaccines are under clinical trials and some rapid and effective diagnostic tools are also under development. In this review, we have highlighted the current epidemiology through infographics, disease transmission and progression, clinical features and diagnosis and possible therapeutic approaches for COVID-19. The article mainly focused on the development and possible application of various FDA approved drugs, including chloroquine, remdesivir, favipiravir, nefamostate mesylate, penciclovir, nitazoxanide, ribavirin etc., vaccines under development and various registered clinical trials exploring different therapeutic measures for the treatment of COVID-19. This information will definitely help the researchers to understand the in-line scientific progress by various clinical agencies and regulatory bodies against COVID-19.

41. Srivastava, Anshu, Sathiyasekharan M., Jagadisan B, Bolia R. et al. (2020)

Paediatric inflammatory bowel disease in India: a prospective multicentre study.

European Journal of Gastroenterology & Hepatology, 32 (10), 1305-1311

Abstract:

Background: Paediatric inflammatory bowel disease (PIBD) is increasing across the world. However, information from India is sparse. This multicentre study evaluated the demographics, clinical phenotype and outcome of PIBD from India. Methods: Data of children (≤ 18 years) with PIBD were collected using a proforma containing details of demographics, clinical profile, extraintestinal manifestations (EIM), investigations, disease

extent and treatment. Results: Three hundred twenty-five children [Crohn's disease: 65.2%, ulcerative colitis: 28.0%, IBD unclassified (IBDU): 6.7%, median age at diagnosis: 11 (interquartile range 6.3) years] were enrolled. 6.9% children had family history of IBD. Pancolitis (E4) was predominant in ulcerative colitis (57.8%) and ileocolonic (L3, 55.7%) in Crohn's disease. Perianal disease was present in 10.9% and growth failure in 20.9% of Crohn's disease cases. Steroids were the initial therapy in 84.2%, 5-amino salicylic acid in 67.3% and exclusive enteral nutrition (EEN) in 1.3% cases. Overall, immunomodulators and biologics were given to 84.3 and 17.9% cases, respectively, and 2.9% cases underwent surgery. Very early onset IBD (VEOIBD) was seen in 60 (19.2%) children. IBDU was commoner in the VEOIBD than the older-PIBD (18/60 vs 4/253; $P < 0.001$). VEOIBD-Crohn's disease patients more often had isolated colonic disease than the older Crohn's disease (45.4% vs 11.8%; $P < 0.001$). Prevalence of perianal disease, EIM, therapeutic requirements and outcome were not different between VEOIBD and older-PIBD. Conclusion: Disease location and phenotype of PIBD in Indian children is similar to the children from the west. However, the therapeutic options of EEN, biologics and surgery are underutilized. VEOIBD accounted for 19.2% of PIBD.

42. Dixit SB, Zirpe KG, Kulkarni AP, Chaudry D., Govil D., Mehta Y., Jog SA et al. (2020) [*Current Approaches to COVID-19: Therapy and Prevention.*](#) Indian J Crit Care Med. 2020;24(9):838-846.

Abstract:

The coronavirus disease-2019 (COVID-19) pandemic has affected millions of people worldwide. As our understanding of the disease is evolving, our approach to the patient management is also changing swiftly. Available new evidence is helping us take radical decisions in COVID-19 management. We searched for inclusion of the published literature on treatment of COVID-19 from around the globe. All relevant evidences available till the time of submission of this article were briefly discussed. Once advised as blanket therapy for all patients, recent reports of hydroxychloroquine with or without azithromycin indicated no potential benefit and use of such combination may increase the risk of arrhythmias. Clinical evidence with newer antivirals such as remdesivir and favipiravir is promising that can hasten the patient recovery and reduce the mortality. With steroids, evidence is much clear in that it should be used in low dose and for short period not extending beyond 7 days in moderate to severe hospitalized patients. Low-molecular-weight heparin should be initiated in all hospitalized COVID-19 patients and dose should be based on the coagulation profile and risk of thromboembolism. Immunomodulatory drugs such tocilizumab may be considered for severe and critically ill patients to improve the outcomes. Though ulinastatin can be a potential alternative immunomodulator, there is lack of clinical evidence on its usage in COVID-19. Convalescent plasma therapy can be potentially lifesaving in critically ill patients. However, there is need to generate further evidence with various such therapies. Though availability of a potent vaccine is awaited, current treatment of COVID-19 is based on available therapies, which is guided by the evidence. In this review, we discuss the potential treatments available around the globe with current evidence on each of such treatments.

43. Gandhi, S., Bhatta, S., Saindani, S.J. et al. (2020) [*Safety Protocols for Videolaryngoscopy During the COVID-19 Pandemic: A Prospective Review of 196 Cases.*](#) Indian J Otolaryngol Head Neck Surg., 31, 1-8

Abstract:

To prepare safety protocols for performing videolaryngoscopy (VLS) during COVID-19 pandemic, that would be feasible for patients, hospital and the health care providers. This was a prospective study performed from March 01, 2020 to June 30, 2020. It analyzed the precautions adapted for VLS initially and subsequently describes modifications with the time. The safety protocols are developed considering the safety aspect, the feasibility aspect (due to increase in number of the VLS), and the financial aspect. The VLS was performed with the personal protective equipment (PPE), including the face shield mask and head cover. The PPE was re-used after sterilization with ethylene oxide. For local anesthesia, the oropharynx was sprayed with 15% xylocaine and nose packed with 4% xylocaine soaked pledget. Following the VLS, the scope was wiped three times with 80% alcohol and then immersed in 5.25% sodium hypochlorite and 0.55% ortho-phthalaldehyde for 10 min each. Each VLS was spaced by at least 15 min gap. The endoscopy suite maintained with laminar air flow. It can be concluded that during the COVID-19 pandemic, the VLS must be performed using PPE with proper sterilization of the scope and the endoscopy suite after the procedure. The use of face shield mask and 15% xylocaine spray into the oropharynx were also highlighted. The financial burden should be minimized by reusing the materials whenever possible.

44. Amit Kumar, Mani Kant, Sweta, Rajan V. Joshi, Shilpa U. Kalane (May 2020)

A comparative study to compare the effect of volume Guarantee ventilation and pressure limited ventilation on Required duration of ventilation in preterm infants

GJRA –Global Journal For Research Analysis, 9(5), Print issue no. 2277

Abstract:

Background: Volume guaranteed (VG) is a novel mode, best described as a dual loop synchronized modality that ventilates with time cycled pressure limited ventilation. It provides automatic adjustment of the peak inspiratory pressure for ensuring a minimum set tidal volume. There are limited data about the effects of VG ventilation on required duration of ventilation and short term neonatal outcomes in preterm infants with respiratory distress syndrome (RDS). Objective: The objective of this study was to evaluate the effect of VG ventilation on required duration of ventilation. Methods: This prospective randomized comparative study was conducted at level III b NICU of Deenanath Mangeshkar Hospital & Research Center, Pune between May 2016 to April 2017. Forty six preterm infants who required mechanical ventilation were randomly divided into 2 groups [SIPPV group (n=23) and SIPPV + VG group (n=23)]. Required duration of mechanical ventilation was recorded. Post extubation CPAP duration and duration of oxygen requirement were also recorded. Results: There were no significant differences between two groups in terms of demographic features. Infants ventilated with VG mode had shorter duration of ventilation (statistically not significant). Extubation failure was observed less frequently with SIPPV + VG mode of ventilation. Post extubation duration of CPAP requirement and duration of oxygen requirement were significantly less (p-value <0.05) in infants ventilated with VG mode. Conclusion: In conclusion, in our study VG ventilation significantly reduced duration of CPAP and oxygen requirement in preterm infants. A trend in reduction in required duration of ventilation was also observed with VG mode of ventilation. This data favours the use of VG ventilation in respiratory support of premature infants.

45. Ranade, Ashish S., Belthur, Mohan V., Oka, Gauri A., Malone, Jason D. (2020)

YouTube as an information source for clubfoot: a quality analysis of video content

Journal of Pediatric Orthopedics B: July 2020 - Volume 29 - Issue 4.

Abstract:

Idiopathic clubfoot is the most common congenital anomaly of the lower extremity. YouTube has emerged as an important source of health-related information for patients and families. Parents seek information about clubfoot on YouTube. However, the quality of these videos remains unknown. Therefore, we decided to evaluate the quality

of YouTube videos about clubfoot. We searched YouTube for clubfoot videos using appropriate keywords. English language videos with more than 10 000 views were included. Three fellowship trained pediatric orthopedic surgeons independently assessed the videos and classified them into corporate, hospital, education and private. The quality of information was assessed using the Modified DISCERN and JAMA benchmark scores. The search yielded 12 060 videos of which 42 were analyzed. There were 9 (21%) videos from corporate organizations, 12 (29%) from hospitals, 3 (7%) from educational organizations and 18 (43%) by private individuals. The mean Modified DISCERN score was 2.1 ± 1.07 (range 0.3–4) and mean JAMA benchmark score was 0.9 ± 0.65 (range 0–2). Educational videos had highest mean Modified DISCERN score (3.1 ± 0.85) and private videos, the least (1.43 ± 1). This difference was statistically significant ($P = 0.004$). Hospital videos had highest mean JAMA benchmark score of 1.3 ± 0.6 as compared with private videos which had the least mean score of 0.5 ± 0.6 . This difference was also statistically significant ($P = 0.001$). The results of our study indicate that the quality of information on idiopathic clubfoot on YouTube needs improvement. Videos from educational and hospital sources should be preferred over private sources.

46. Pathak S, Bharadwaj A, Patil P, Raut S, Srikanth Rv. (2020)

Functional Outcomes of Arthroscopic Combined Anterior Cruciate Ligament Reconstruction and Meniscal Repair: A Retrospective Analysis.

Arthrosc Sports Med Rehabil. 2020 Apr 23;2(2):e71-e76. (2020)

Abstract:

To evaluate the outcomes of arthroscopic meniscal repair performed in combination with anterior cruciate ligament (ACL) repair. This study presents a case series of 34 patients who underwent repair of meniscal tears along with ACL reconstruction from 2014 to 2016. Cases of discoid meniscal lesions and combined or ligament injuries other than ACL injuries were excluded. Patients were followed up periodically, at 3, 6, 9, 12, and 24 months. Preoperative and postoperative functional evaluations were performed using visual analog scale, International Knee Documentation Committee, and Lysholm knee scores. The mean age of the patients was 29.1 years (range, 17-44 years). The mean follow-up period was 18 ± 7.8 months (range, 6-24 months). Among the 34 individual knees, 1 patient (3%) underwent both medial and lateral meniscal repairs. Medial meniscal repair was performed in 20 knees (59%), whereas the lateral meniscus was repaired in 13 knees (38%). A longitudinal tear was the most common type of tear pattern, followed by radial (6 patients) and complex (3 patients) tear patterns. The radial and complex tears were treated with an additional partial meniscectomy. The mean International Knee Documentation Committee score was 38.46 preoperatively and improved to 80.30 at final postoperative follow-up (statistically significant difference, $P < .01$). The mean Lysholm score was 50.30 preoperatively and improved to 91.40 at final postoperative follow-up (statistically significant difference, $P < .01$). According to the Lysholm knee score, 31 patients (89%) had excellent or good results. The mean visual analog scale score decreased from 7.3 preoperatively to 2 postoperatively. The clinical success rate of the repairs was 89%. Of 35 repairs, 4 (11%) had retears. Arthroscopic meniscal repair along with ACL reconstruction provided predictable high rates of meniscal healing and yielded favorable functional and clinical results. Patient selection remains one of the most important prognostic factors.

47. Ranade, A.S., Oka, G.A., Daxini, A. *et al.* (2020)

Radiation Safety Knowledge and Practices: Is the Indian Orthopaedic Community Well

informed?

Indian J Orthop. 54 (Suppl 1), 158–164 (2020).

Abstract:

In spite of frequent exposure to radiation, orthopaedic surgeons lack knowledge about radiation safety and do not comply with safety practices. We surveyed orthopaedic trainees and consultants in India to determine their knowledge and practices regarding radiation safety. A questionnaire with 16 multiple choice questions was sent out using Google forms. We included practicing orthopaedic surgeons (consultants), fellows and trainees pursuing DNB, MS and D. Ortho courses across India. We received 439/700 responses (62.7% response rate) from 233 (53.1%) consultants and 206 (46.9%) trainees. Only 71 (16.2%) were aware of the ALARA (As Low As Reasonably Achievable) principle. While lead aprons were always used by 379 (86.3%), thyroid shields were never used by 302 (68.8%) respondents. Knowledge about the ALARA principle was significantly associated with radiation safety practices. A significantly greater proportion of participants who were aware about the ALARA principle always used lead aprons (OR 1.15; 95% CI 1.0 to 1.2, $p = 0.001$) and thyroid shields (OR 2.00; 95% CI 1.0 to 3.7, $p = 0.029$) and had their dosimeters checked within the last 1 year (OR 1.69; 95% CI 1.0 to 2.8, $p = 0.039$) when compared to those who were not aware of the ALARA principle. Almost 99% respondents expressed interest in participating in a radiation safety training program. A majority of the respondents were keen to obtain training in radiation safety. We believe that professional organizations and hospitals could initiate training programs for the orthopaedic community in India to improve their radiation safety knowledge and practices.

48. Jog S, Kelkar D, Bhat M, Patwardhan S., Godavarthy P.et al. (2020)

Preparedness of Acute Care Facility and a Hospital for COVID-19 Pandemic: What We Did!

Indian J Crit Care Med. 2020;24(6):385-392.

Abstract:

India is facing the pandemic of coronavirus disease (COVID-19) just like the whole world. The private sector is the backbone of a healthcare facility in India. Presently, only a few major hospitals in the country are actively dealing with the COVID-19 patients while others are facing troubles due to lack of manpower, management, and required experience to face the pandemic. Despite the lockdown, the cases are ever increasing and each and every hospital in the country should be prepared to face this pandemic the world has never seen before. As one of the largest multispecialty hospitals and a designated COVID center, we have developed and adopted some strategies for better preparedness to face the surge of this pandemic. We would like to share our experience and hope that the strategies laid down and adopted by us will help many other acute care facilities in many parts of India. Different strategies are adopted to deal with the crisis situation of the COVID-19 pandemic. Our adopted strategies were directed to mitigate the challenges of administration, hospital space organization, management of staff and supplies, maintenance of standard of care, and specific COVID care and ethics during this pandemic. Based on strategies adopted by us, we feel more confident and prepared to deal with COVID-19 pandemic. Our approach for preparing for the COVID-19 pandemic may not be the best one but we believe that the basic managerial principles we adopted will guide many other institutions to find their path in tackling the pandemic in the best possible way.

49. Chaudhuri D et al.(2020)

Moderate Certainty Evidence Suggests the Use of High-Flow Nasal Cannula Does Not Decrease Hypoxia When Compared With Conventional Oxygen Therapy in the Peri-Intubation Period: Results of a Systematic Review and Meta-Analysis.

Critical Care Medicine, Volume 48, Number 4, April 2020, pp. 571-578(8)

Abstract:

The role of high-flow nasal cannula during and before intubation is unclear despite a number of randomized clinical trials. Our objective was to conduct a systematic review and meta-analysis examining the benefits of high-flow nasal cannula in the peri-intubation period. We performed a comprehensive search of relevant databases (MEDLINE, EMBASE, and Web of Science). We included randomized clinical trials that compared high-flow nasal cannula to other noninvasive oxygen delivery systems in the peri-intubation period. Our primary outcome was severe desaturation (defined as peripheral oxygen saturation reading < 80% during intubation). Secondary outcomes included peri-intubation complications, apneic time, Pao₂ before and after intubation, Paco₂ after intubation, ICU length of stay, and short-term mortality. We included 10 randomized clinical trials (*n* = 1,017 patients). High-flow nasal cannula had no effect on the occurrence rate of peri-intubation hypoxemia (relative risk, 0.98; 95% CI, 0.68–1.42; 0.3% absolute risk reduction, moderate certainty), serious complications (relative risk, 0.87; 95% CI, 0.71–1.06), apneic time (mean difference, 10.3 s higher with high-flow nasal cannula; 95% CI, 11.0 s lower to 31.7 s higher), Pao₂ measured after preoxygenation (mean difference, 3.6 mm Hg higher; 95% CI, 3.5 mm Hg lower to 10.7 mm Hg higher), or Pao₂ measured after intubation (mean difference, 27.0 mm Hg higher; 95% CI, 13.2 mm Hg lower to 67.2 mm Hg higher), when compared with conventional oxygen therapy. There was also no effect on postintubation Paco₂, ICU length of stay, or 28-day mortality. We found moderate-to-low certainty evidence that the use of high-flow nasal cannula likely has no effect on severe desaturation, serious complications, apneic time, oxygenation, ICU length of stay, or overall survival when used in the peri-intubation period when compared with conventional oxygen therapy.

50. Rosenthal VD, Bat-Erdene I, Gupta D, Belkebir S, Rajhans P et al (2020)

International Nosocomial Infection Control Consortium (INICC) report, data summary of 45 countries for 2012-2017: Device-associated module

American Journal of Infection Control 48 (4), 423-432

Abstract :

Background: We report the results of International Nosocomial Infection Control Consortium (INICC) surveillance study from January 2012 to December 2017 in 523 intensive care units (ICUs) in 45 countries from Latin America, Europe, Eastern Mediterranean, Southeast Asia, and Western Pacific. Methods : During the 6-year study period, prospective data from 532,483 ICU patients hospitalized in 242 hospitals, for an aggregate of 2,197,304 patient days, were collected through the INICC Surveillance Online System (ISOS). The Centers for Disease Control and Prevention-National Healthcare Safety Network (CDC-NHSN) definitions for device-associated health care–associated infection (DA-HAI) were applied. Results: Although device use in INICC ICUs was similar to that reported from CDC-NHSN ICUs, DA-HAI rates were higher in the INICC ICUs: in the medical-surgical ICUs, the pooled central line-associated bloodstream infection rate was higher (5.05 vs 0.8 per 1,000 central line-days); the ventilator-associated pneumonia rate was also higher (14.1 vs 0.9 per 1,000 ventilator-days), as well as the rate of catheter-associated urinary tract infection (5.1 vs 1.7 per 1,000 catheter-days). From blood cultures samples, frequencies of resistance, such as of *Pseudomonas aeruginosa* to piperacillin-



tazobactam (33.0% vs 18.3%), were also higher. Conclusions: Despite a significant trend toward the reduction in INICC ICUs, DA-HAI rates are still much higher compared with CDC-NHSN's ICUs representing the developed world. It is INICC's main goal to provide basic and cost-effective resources, through the INICC Surveillance Online System to tackle the burden of DA-HAIs effectively.



Training, CMEs and educational events



TOPIC	DATE	SPEAKER (S)
<p>In-house research promotion and productivity amid the ongoing pandemic: overview of research pivoted to Covid</p> <p>Organizers – Dr. Amrita P. Prayag and Dr. Vaijayanti V. Pethe</p>	<p>10 January 2021</p>	<p>Dr. Dhananjay S. Kelkar In-house research policy in 2021</p> <p>Program moderator – Dr. Amrita P. Prayag</p> <p>Speakers – (Topic) –</p> <ol style="list-style-type: none"> 1. Dr. Vaijayanti V. Pethe (Preamble) 2. Dr. Nilesh Mahale_(IHR 361) 3. Dr. Girish Sarade_(IHR 370 and 388) 4. Dr. Prashant Mishra_(IHR 374) 5. Dr. Bharat Purandare_(IHR 375) 6. Dr. Prasanna Marudwar_(IHR 377) 7. Dr. Rahul Kulkarni_(IHR 378) 8. Dr. Gayatri Bhide_(IHR 383) 9. Dr. Shirish Phansalkar_(IHR 382) 10. Dr. Sachin Gandhi_(IHR 385) 11. Dr. Arunkumar Tirlapur_(IHR 390)

TOPIC	DATE	SPEAKER (S)
		12. Dr. Atul Mulay – Update on Covid patients Logistics and coordination – Dr Shweta A. Chitharanjan
Clinical research at an inflection point – evolving to navigate the challenging times in the wake of the pandemic. (Training-cum-seminar program on guidelines and rules in research) Organizers – Dr. Pethe V. (DMHRC, Pune) and Dr. Ghooi R. (ERI, Pune)	29 November 2020	Patron, support and Director – Dr. Dhananjay S. Kelkar Program moderator – Dr. Amrita P. Prayag Speakers – (Topic) – 1. Dr. Vaijayanti V. Pethe (Preamble) 2. Dr. Ravindra Ghooi, ERI, Pune (New Drugs and CT Rules, 2019) 3. Dr. Smita Tiwari, BJMC, Pune (ICMR guidelines, 2017 and 2020) 4. Dr. Rahul Kulkarni, DMHRC, Pune (ICH-GCP guidelines with clinical scenarios- R1 and R2) Program logistics, registrations and coordination – - Dr. Shweta A. Chitharanjan - RD_CRC team (Drs - Deepali, Tejashree, Snehal, Smita, Asmita, Madhura, Kirtee)



In-house research program

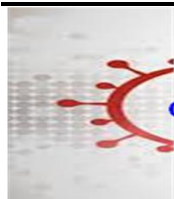


IN-HOUSE RESEARCH AT-A-GLANCE

NUMBER OF PROJECTS REVIEWED IN DIFFERENT THERAPEUTIC AREAS **[360 – 402; N = 43]**

S. NO. DEPARTMENT	NUMBER OF PROJECTS REVIEWED
	<u>[N = 43]</u>
1. ONCOLOGY	8
2. CCM/ICU	3
3. NURSING	1
4. VOICE CLINIC	4
5. MICROBIOLOGY	1
6. AYURVEDA	3
7. NEUROLOGY	4
8. CARDIOLOGY	2
9. INFECTIOUS DISEASES	1
10. CLINICAL BIOCHEMISTRY	3
11. PEDIATRICS	7
12. HOMEOPATHY	1
13. SIMULATION	1
14. ORTHOPEDICS	1
15. UROLOGY	1
16. MEDICINE	1
17. GASTROENTEROLOGY	1

IN-HOUSE RESEARCH AT DMHRC – PROJECTS SUBMITTED FOR REVIEW BY SAC/IEC
– [N = 43; IHR 360 TO 402]



COVID PIVOTED RESEARCH

[N = 21]

1] *Dr Dhananjay S. Kelkar [IHR_2020_APR_DSK_360]*

A prospective non-randomized comparative study to determine the role of Jalneti in reducing Covid-19 positivity in health care workers and other staff working in tertiary hospital

2] *Dr Nilesh Mahale [IHR_2020_Apr_NM_361]*

A retrospective observational study of outcome of patients with Covid-19 related respiratory failure treated with and without immune-modulating drugs

3] *Dr Dhananjay S. Kelkar [IHR_2020_APR_DSK_362]*

A prospective cohort study to assess the evolving physiological and psychological states and coping strategies of entire staff working in a tertiary care hospital during the Covid-19 pandemic

4] *Dr Sampada Patwardhan [IHR_2020_Jun_SP_369]*

Randomized pilot study to assess possible route of transmission of SARS –CoV-2 through fecal material of positive patients and their potential role in persistent fecal viral shedding in the environment.

5] *Dr. Pankaj Wanjarkhedkar [IHR_2020_Jun_PW_370]*

A prospective non-randomized interventional study to determine the efficacy of an Ayurveda regimen in Covid positive patients

6] *Dr Sandeep Tamhane [IHR_2020_Jun_ST_371]*

A cross-sectional pilot study to determine the general difficulties faced by geriatric patients during the Covid-19 pandemic and assess their coping strategies
[The study was withdrawn by the PI]

7] *Dr Dhananjay S. Kelkar [IHR_2020_Jun_DK_373]*

A retrospective observational study of outcomes of patients who have undergone surgery during the Covid-19 pandemic.

8] *Dr Prashant Mishra [IHR_2020_Jul_PM_374]*

Prevalence of cardiac manifestations in Covid -19 patients admitted to ICU assessed by echocardiography – an observational study

9] *Dr Bharat Purandare [IHR_2020_Jul_BP_375]*

Improving real-time COVID-19 monitoring through smartphone voice analysis





COVID PIVOTED RESEARCH

[\[N = 21\]](#)

- 10] *Dr Sameer Jog* [IHR_2020_Aug_SJ_377]
European Society Of Intensive Care Medicine (ESICM) Covid-19 Project (UNITE-COVID)
- 11] *Dr Rahul Kulkarni* [IHR_2020_Aug_RK_378]
A study of neurological manifestation of Covid-19
- 12] *Dr Shirish Sathe* [IHR_2020_Aug_SS_381]
Pattern of acute MI admissions in India during Covid-19 era – a Cardiological Society of India (CSI) study.
- 13] *Dr Shirish Phansalkar* [IHR_2020_Oct_SP_382]
Efficacy of indicated homeopathic medicines as an adjuvant therapy in mild to moderate Covid-19 cases.
- 14] *Dr Sumant Patil* [IHR_2020_Oct_SP_383]
Clinical profile of Covid-19 infection in children
- 15] *Dr Vaibhavi Upadhey* [IHR_2020_Oct_VU_384]
Clinical and psychological impact of simulation training on healthcare professionals in a hospital dedicated for patient care during Covid- 19 pandemic.
- 16] *Dr Sachin Gandhi* [IHR_2020_Nov_SG_385]
Otorhinolaryngologic manifestations of Covid 19 – A review of 600 patients.
- 17] *Dr Pankaj Wanjarkhedkar* [IHR_2020_Dec_PW_388]
An observational study of post-Covid outcomes in the patients treated with an add-on Ayurveda regimen
- 18] *Dr Arun Tirlapur* [IHR_2020_Dec_AT_390]
Outcomes of end-stage renal disease patients admitted with Covid-19
- 19] *Dr Sameer Jog* [IHR_2021_Jan_SJ_394]
Study of non-invasive Respiratory Assist Devices in the management of Covid-19 related ARDS.
- 20] *Dr Sadanand Naik* [IHR_2021_Feb_SN_400]
Biomarkers for the diagnosis and management of Covid-19 patients : An observation
- 21] *Dr Sachin Palnitkar* [IHR_2021_Mar_SP_402]
Retrospective study of hepatic and gastrointestinal manifestations of Covid-19 infections in patients admitted in a tertiary care hospital and its impact on overall morbidity and mortality



NON- COVID RESEARCH – [N = 22] –

1] *Mrs. Revati Mangaonkar* [IHR_2020_May_RM_363]

A cross-sectional study of nurses' knowledge and practices towards care of peripheral IV cannulation in a tertiary care setting

2] *Dr. Sachin Gandhi* [IHR_2020_May_SG_364]

A retrospective study to compare vocal fold vibratory onset delay and closed phase glottal cycle in adductor spasmodic dysphonia patients before and after CO₂- laser-guided thyroarytenoid myoneurectomy using high speed video laryngoscopy

3] *Dr. Sachin Gandhi* [IHR_2020_May_SG_365]

A retrospective study to compare high-speed video laryngoscopy findings of post-corpectomy patients with that of normal control group

4] *Dr. Sachin Gandhi* [IHR_2020_May_SG_366]

A retrospective study to compare pre-operative and post-operative high-speed imaging parameters in patients with unilateral vocal cord paralysis undergoing autologous fat augmentation

5] *Dr Amit Parasnis* [IHR_2020_May_AP_367]

A cross-sectional survey to assess time interval between appearance of symptoms and presentation for first consult in cancer patients and /or a change in the plan of management of such patients during the pandemic and lockdown.

6] *Dr Dhananjay Kelkar* [IHR_2020_May_DK_368]

A retrospective data analysis of patients diagnosed with granulomatous mastitis - an under-reported but debilitating condition of the breast.

7] *Dr Rahul Kulkarni* [IHR_2020_Jun_RK_372]

A retrospective analysis of data to assess the neurological manifestations of patients with dengue fever.

8] *Dr Sadanand Naik* [IHR_2020_Aug_SN_376]

Intake of milk, pregnancy outcomes and Vitamin B12 (IMPROVIT- 2)

9] *Dr Shreepad Pujari* [IHR_2020_Aug_SP_379]

To study the neurological manifestations of cancer

10] *Dr Shilpa Kalane* [IHR_2020_Aug_SK_380]

Neo i Care (control) vs Giggles (study) eye covering devices used during phototherapy in full-term neonates.

11] *Dr Ashish Babhulkar* [IHR_2020_Dec_AB_386]

Long-term radiological assessment of Biocomposite suture anchors and All-suture anchors in Bankart repair.

12] *Dr Pankaj Wanjarkhedkar* [IHR_2020_Dec_PW_387]

Maintenance therapy with Ayurveda medicines in recurrent ovarian cancer

NON- COVID RESEARCH [CONTD. N = 22] –

13] *Dr Sadanand Naik* [IHR_2020_Dec_SN_389]

Birth prevalence of genetic disorders detected by newborn screening test in Pune population.

14] *Dr Shailesh Kanvinde* [IHR_2021_Jan_SK_391]

Once a Day Ceftriaxone-Amikacin combination as empiric therapy to enable outpatient management of febrile neutropenia in children – 16 year experience from a single institute.

15] *Dr Shilpa Kalane* [IHR_2021_Jan_SK_392]

Efficacy of controlled ventilation with a non invasive ventilator versus traditional manual ventilation for providing positive pressure ventilation while resuscitating a newborn in delivery room.

16] *Dr Mahesh Sambhus* [IHR_2021_Jan_MS_393]

Genetics of breast cancer : Patient awareness and acceptance of genetic testing and counseling.

17] *Dr Rahul Kulkarni* [IHR_2021_Feb_RK_395]

Clinical immersion in a Neurology Department at DMH

18] *Dr Palak Jain* [IHR_2021_Feb_PJ_396]

To study the effect of use of Human milk-based fortifier versus Bovine milk-based fortifier in preterm low-birth weight neonates on the duration of NICU stay.

19] *Dr Ramesh Kulkarni* [IHR_2021_Feb_RK_397]

To assess glycemic control in patients admitted to non-critical setting in Deenanath Mangeshkar Hospital, Pune [Rejected]

20] *Dr Uday Devaskar* [IHR_2021_Feb_UD_398]

Prevention of post-partum maternal to infant transmission of CMV infection via mother's breast milk in preterm infants

21] *Dr Shilpa Kalane* [IHR_2021_Feb_SK_399]

Does ventilation before umbilical cord clamping improve the short term neonatal outcomes

22] *RD Lavanya Raste* [IHR_2021_Feb_LR_401]

A Community based study on the composition of human milk among lactating mothers with respect to their dietary habits and nutritional status at selected locations in India [Rejected]



Clinical Trial research program



CLINICAL TRIAL RESEARCH PROGRAM AT DMHRC – PROJECTS REVIEWED BY SAC/IEC AND THEIR STATUS

A] TOTAL NUMBER OF PROJECTS REVIEWED – [N =29] [CT_2020_May_SJ_616 to CT_2021_Mar_RK_644]

PROJECT STATUS	NUMBER OF PROJECTS [N= 29]
Ongoing	08
Pending	18
Rejected/ Terminated	03

Pending status – The projects have not been given final approval in view of lack of either administrative and/or regulatory documents in the context of clinical trials. Some of the documents and items include – Final CTA, EC review fees, final ICFs, CTRI notification, DCGI submission/ approval notification.

B] STATUS OF CLINICAL TRIAL STUDIES AND THEIR THERAPEUTIC AREAS – UPDATED AS OF MARCH 2021

Ongoing and inactive projects –

Total number of studies	N=	50
Studies having ongoing patient activities	N=	43
Inactive studies – formal close-out from sponsor awaited	N=	07

C] THERAPEUTIC AREAS OF ONGOING PROJECTS – [N= 43]

THERAPEUTIC AREA	NUMBER OF ONGOING TRIALS [N=43]
Dermatology	1
Endocrinology	3
Ob-Gyn	1
Critical Care Medicine	1
Medicine	2
Psychiatry	2
Neurology	9
Oncology	19
Ophthalmology	2
Rheumatology	3

D] CLOSED-OUT PROJECTS AND THEIR THERAPEUTIC AREAS [N=17]

THERAPEUTIC AREA	NUMBER OF PROTOCOLS [N=17]
Dermatology	2
Endocrinology	3
Neurology	1
Oncology	6
Ophthalmology	2
Orthopedics	1
Surgery	2



DNB thesis program





DNB THESIS PROGRAM AT DMHRC – PROJECTS ACCEPTED BY NBE

[Data Was Requested From The Department Of Academics]

Sr. No.	Name Of Principal Investigator	Name Of Guide / Supervisor	Specialty / Department	Title Of Thesis Protocol
1	Dr. Hrishikesh Shevatekar	Dr. Jitendra Kshirsagar	Anesthesiology	Evaluation Of Haemodynamics And Duration Of Intubation Using Direct Laryngoscopy And Video Laryngoscopy: A Prospective Observational Comparative Study
2	Dr. Praveen Kumar	Dr. Vinayak Desurkar	Anesthesiology	A Prospective Comparative Study To Evaluate The Duration Of Postoperative Analgesia Of 0.75% Ropivacaine And 0.5% Levobupivacaine In Ultrasound-Guided Interscalene Brachial Plexus Block For Arthroscopic Shoulder Surgeries
3	Dr. Snehal Subhashrao Uttarwar	Dr. Prasanna Khare	Anesthesiology	A Prospective Study To Compare Effectiveness Of Dexmedetomidine And Magnesium Sulphate For Producing Controlled Hypotension In Functional Endoscopic Sinus Surgery
4	Dr. Pooja Ramchandra Ghalsasi	Dr. Shireesh Sathe	Cardiology	Prospective Observational Study To Determine Incidence Of High Bleeding Risk Using Academic Research Consortium-High Bleeding Risk (Arc-Hbr) Criteria And Incidence Of Bleeding In Patients Undergoing Percutaneous Coronary Intervention
5	Dr. Shirke Sachin Balkrishna	Dr. Rajesh Dhopeswarkar	Cardiology	To Study The Incidence And Predictors Of Left Ventricular Cavity Thrombus By Using 2-Dimensional Trans Thoracic Echocardiography (Tte) And Contrast Echocardiography Within Two Weeks Of An Acute Anterior Wall St-Segment Elevation Myocardial Infarction With Left Ventricular Systolic Dysfunction (Lvef < 40%)
6	Dr Aneesh.P.M	Dr. Balasaheb Pawar	Critical Care Medicine	A Retro-Prospective Observational Study Of High Flow Nasal Oxygen In Acute Hypoxemic Respiratory Failure
7	Dr. Marreddy Srinath	Dr. Akole Prasad Vasant	Critical Care Medicine	Prospective Observational Study Of Mortality Predictors In Critically Ill Elderly Patients With Sepsis.
8	Dr. Vikram L	Dr. Sameer Jog	Critical Care Medicine	Incidence Of Mottling In Patients With Septic Shock And Its Correlation With Other Severity Predictors
9	Dr. Mrunali Udaram Nikhare	Dr. Prasad Rajhans	Emergency Medicine	A Prospective Observational Study On Comparision Of Sensitivity Of Point-Of Care B-Line Lung Ultrasound And Nt-Probnp For Diagnosis Of Acute Heart Failure



Sr. No.	Name Of Principal Investigator	Name Of Guide / Supervisor	Specialty / Department	Title Of Thesis Protocol
10	Dr. Khare Mihir	Dr. Sachin Gandhi	ENT (Otorhinolaryngology)	An Observational Study To Evaluate The Quality Of Voice In Patient With Unilateral Vocal Cord Palsy And Undergoing Injection Medialization Laryngoplasty With Autologous Fat Injection
11	Dr. Sandeep Saseendran	Dr. Sachin Gandhi	ENT (Otorhinolaryngology)	A Prospective Observational Study To Determine The Added Value Of Ktp Laser Assisted Debulking + Intralesional Injection Of Bevacizumab Against Ktp Laser Assisted Debulking Alone In The Treatment Of Recurrent Respiratory Pappilomatosis.
12	Dr. Kiran Wakade	Dr. Pratibha Phadke	General Medicine	Retro-Prospective Study To Observe And Analyse The Effects And Outcomes Of Covid-19 In Young Diabetics And Non Diabetics Requiring Oxygen Therapy
13	Dr. Nisha Soni	Dr. Deuskar Jitendra	General Surgery	A Retrospective Study To Evaluate The Impact Of Trastuzumab Therapy On Outcomes Of Her 2 Positive Breast Cancer
14	Dr. Dhawade Pallavi Prakash	Dr. Mulay Atul	Nephrology	Evaluation Of Rate And Risk Factors Of Recurrence Of Urinary Tract Infection After Severe Urinary Tract Infection Needing Hospitalization.
15	Dr. Dole Shreya Sanjeeva	Dr Pujari Shripad	Neurology	A Prospective Study Of Clinical Outcome In Wake Up Stroke (Wus) And Ischemic Stroke With Late Presentation With Respect To Revascularisation Strategies And Medical Treatment
16	Dr. Ambekar Mohd Muzammil	Dr. Kaustubh Dindorkar	Neurosurgery	A Retrospective Study Of Pattern And Outcome Of Operated Spinal Tumours At A Tertiary Care Hospital Of Western India
17	Dr. Aditi Ajaykumar Kaswa	Dr. Girish Godbole	Obstetrics and Gynecology	A Prospective Observational Study To Determine Predictors Of Response To Ovulation Induction With 2.5mg Letrozole In Anovulatory Infertile Women With Polycystic Ovarian Syndrome.
18	Dr. Neha Khalil Sheikh	Dr. Asha Gokhale	Obstetrics and Gynecology	Prospective Observational Study To Compare Hba1c (Glycosylated Haemoglobin) Before 20 Weeks Of Gestation With Oral Glucose Challenge Test (Ogct) Before 26 Weeks Gestation As A Screening Method To Diagnose Gestational Diabetes Mellitus
19	Dr. Vaghani Hinal Ishvarbhai	Dr. Arundhati Kanade	Obstetrics and Gynecology	A Prospective Observational Study Of Ovarian Reserve Before And After Laparoscopic Endometrioma Surgery
20	Dr. Vijay Nidhi Dhasmana	Dr. Asha Gokhale	Obstetrics and Gynecology	A Prospective Observational Study To Evaluate The Pregnancy Outcomes In Women With Advanced Maternal Age (>35 Years Of Age)



Sr. No.	Name Of Principal Investigator	Name Of Guide / Supervisor	Specialty / Department	Title Of Thesis Protocol
21	Dr. Anupama	Dr. Vidyadhar Patwardhan	Ophthalmology	Evaluation Of Effect Of Horizontal Muscle Squint Surgery On Refractive Status And Axial Length –A Prospective Study
22	Dr. Yogita Gote	Dr. Shrikant Joshi	Ophthalmology	A Comparative Prospective Observational Study Of Changes Anterior Chamber Morphometry, Intra-Ocular Pressure And Anti Glaucoma Medications After Cataract Surgery (Phacoemulsification) And Combined Cataract With Glaucoma Surgery(Phacoemulsification +Iridectomy) In All Glaucoma Patients.
23	Dr. Ankit B. Waghela	Dr. Ranjit Deshmukh	Orthopedic Surgery	A Comparative Study Of Mortality Rate In Operated Elderly Patients Of Fracture Neck Of Femur, Within 90 Days Of Surgery Before And During Covid -19 Pandemic
24	Dr. Ankita Shah	Dr. Rajan Joshi	Pediatrics	“Outcomes At Discharge In Neonates With Moderate To Severe Hypoxic Ischaemic Encephalopathy Following Therapeutic Hypothermia.”
25	Dr. Snehal Keni	Dr. Rajhans Arti	Pediatrics	“A Retrospective Study To Compare Clinical Utility Of An Amplitude Integrated Electroencephalography With Conventional Electroencephalography In Neonates At Risk Of Neurological Injury.”
26	Dr. Surabhi S Madhyastha	Dr. Sumeet Pitkar	Pediatrics	A Prospective Observational Study To Compare The Anthropometric Measurements Of Exclusively Breastfed And Non-Exclusively Breastfed Term Infants During The First Six Months Of Life
27	Dr. Pratibha Goutam Phasale	Dr. Sumeet Pitkar	Pediatrics	Correlation Of Prism Iii Score With Severity And Outcome In Dengue Fever In Patients Admitted To Picu
28	Dr. Mugdha Deshmukh	Dr. Mahesh Mandolkar	Pathology	An Observational Study On Idh1 Mutations In Cns Gliomas By Immunohistochemistry
29	Dr. Liza Saikia	Dr. Sujit Joshi	Pathology	A Retrospective Study To Assess The Utility Of Complete Blood Count-Based Indices In Predicting Beta Thalassemia Trait In Antenatal Women
30	Dr. Rangan Pallavi Vishvanath	Dr. Mahesh Mandolkar	Pathology	A Retro-Pro prospective Observational Study To Determine The Proportion Of Double Expressors In Diffuse Large B-Cell Lymphomas, Not Otherwise Specified (DLBCL, NOS) In A Tertiary Care Setting
31	Dr. Tugaonkar Tejal Prakash	Dr. Sujit Joshi	Pathology	A Retrospective Study To Evaluate Utility Of Frozen Section For Primary Tissue Diagnosis In Surgical Pathology



Sr. No.	Name Of Principal Investigator	Name Of Guide / Supervisor	Specialty / Department	Title Of Thesis Protocol
32	Dr. Neel Gupta	Dr Kaustubh Prabhune	Plastic Surgery	Retroprospective Observational Study To Assess The Outcome Of Free Gracilis Muscle Transfer To Restore Elbow Flexion In Brachial Plexus Injuries
33	Dr. Dhruvil Shah	Dr. Sanjay Desai	Radio Diagnosis	A Prospective Study To Evaluate The Accuracy Of Magnetic Resonance Imaging In Detection Of Full Thickness Rotator Cuff Tears In Patients Clinically Suspected Of Having Rotator Cuff Tear With Respect To Arthroscopy.
34	Dr. Abhijit Ashok Phalle	Dr. Dhananjay Kelkar	Surgical Oncology	Surgical Outcome And Oncological Safety In Minimally Invasive Total Esophagectomy For Middle And Lower Third Esophageal Cancer.
35	Dr. Ankit Joshi	Dr. Shivde Subodh	Urology (Genito- urinary Surgery)	Prospective Comparative Study Of 3d Laparoscopic Radical Prostatectomy And Open Radical Prostatectomy For Carcinoma Prostate

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<http://www.dmhospital.org/research-aboutus>



As of March 2021 –

The pandemic pandemonium

Covid-19 global cases – 130 million

Global toll – 2.8 million

Emergence of variants, double mutant strains – and very rare vaccine breakthrough infections

The pandemic thrust

mRNA-based vaccines in infectious diseases