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ABSTRACTS

Oral and Poster Presentations

at the

81st Annual Academic Sessions

of the

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13th & 14th October 2022

at the

**Faculty of Medicine
University of Ruhuna
Galle, Sri Lanka**



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Message from the Editors

It is with great pleasure that we forward this message to this year's supplement to *The Galle Medical Journal (GMJ)* September 2022 issue published online in concordance with the 81st Annual Academic Sessions of the Galle Medical Association scheduled to be held from 12th - 14th of October 2022, at the T.W. Wikramanayake auditorium, Faculty of Medicine, University of Ruhuna. This is the second consecutive year that we upload the abstracts of oral & poster presentations in a form of a supplement to the GMJ September issue to give proper recognition to your work.

We are thankful to all the authors who submitted their tireless work amidst a challenging atmosphere and the changing circumstances we experience today. We appreciate your enthusiastic participation for the workshops organized as an aid to prepare oral and poster presentations. Your contribution to the free paper sessions adds glamour to this event.

We expect the authors to maintain highest ethical standards in research with special importance to ethical values such as honesty, excellence in research practice, confidentiality and respect. As co-editors we strived to ensure a fair, unbiased and judicious peer review for the abstracts submitted to the academic sessions of *GMA*.

While wishing you good luck in all your presentations at the forthcoming sessions, we express our sincere thanks to you once again for selecting *GMA* as a platform to present your work. We look forward for your continuous support in all academic activities organized by the *GMA* in future as well.

Eisha I Waidyarathne

Gayani Liyanage

Co-Editors / GMA

Oral Presentation – 01

Clinical presentation, microbiology, genetic profile and associated factors of community acquired methicillin resistant *Staphylococcus aureus* (CA-MRSA) in skin and soft tissue infections among patients attending Teaching Hospital Karapitiya, Sri Lanka**N Liyanage, DLB Piyasiri***Department of Microbiology, Teaching Hospital Karapitiya, Galle, Sri Lanka***Introduction**

Community acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) causing skin and soft tissues infections (SSTI) is a global problem though local data are scarce. The aim of this study was to describe the clinical presentation, microbiology, genetic profile, and associated factors of CA-MRSA with the clinical presentation and presence of Panton Valentine Leucocidine (PVL) gene.

Methods

A descriptive cross-sectional study was done in Teaching Hospital Karapitiya from December 2016 to March 2017. Patients with skin and soft tissue infections were recruited excluding hospital acquired infections according to CDC definition of CA-MRSA. Pus samples and wound swabs were taken from 497 patients and inoculated on mannitol salt agar. CA-MRSA was identified by Clinical Laboratory Standards Institute method and *mecA*, *femB*, and PVL genes were tested by multiplex PCR. Data was analyzed using SPSS. Chi square and Fisher's exact test were used as statistical tests.

Results

Among 188 patients positive for *Staphylococcus aureus*, 101 (53.7%) were CA-MRSA. The commonest clinical presentation was abscess (85.14%). Majority (n=35, 34.66%) had

infections on lower limbs. CA-MRSA isolates were 100% sensitive to vancomycin, cotrimoxazole, teicoplanin, doxycycline, linezolid and rifampicin. Resistance to erythromycin was 77.22% while clindamycin resistance was 62.37% which includes inducible resistance (52.47%). All three *mecA*, *femB* and PVL genes were present in 69.30% (n=70).

When associated factors for CA-MRSA is concerned, there was a lower prevalence (23.8%) of close personal contact (e.g. athletes, army personnel, those who engage in team sports, hostel inmates, tattoo recipients, pets/animal contacts) in patients with CA-MRSA. A statistically significant association was found with the presence of a close personal contact (n = 24) ($p=0.04$) and age <5 years ($p=0.02$) and presence CA-MRSA. A significant association was found between the presence of at least one associated factor and the presence of PVL gene ($p=0.03$).

Conclusions

Commonest clinical presentation of CA-MRSA was abscesses mostly on lower limbs. Presence of close contact and age below five years were significantly associated with SSTI caused by CA-MRSA.

Oral Presentation - 02

Health care seeking behavior among people living in a semi-urban community in Galle during a prolonged island-wide curfew period

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Introduction

The government declare lockdowns or nationwide curfew as an immediate response to unforeseen emergencies. Getting ill during a lockdown could cause severe distress to both patient and the family as familiar avenues of getting health care services may not be accessible during such times. Access to routine healthcare services such as general practitioners, private and government hospitals was restricted during the island-wide curfew enforced to curb the spread of Covid-19. The aim of this study was to learn the coping strategies people used to overcome difficulties they encountered while seeking treatment during this period.

Methods

The patients who had communicated with a general practitioner over the phone to seek treatment during the period from 20th March to 20th April 2020 were contacted and invited to participate in this qualitative study. A total of 16 individuals who consented were interviewed to learn about their experience of seeking treatment for an illness during the above period. These in-depth interviews were transcribed verbatim and later were analyzed using grounded theory approach.

Results

There were 16 instances of family member's illnesses and one instance of own illness. Following five themes emerged during the analysis of narratives: Unpredictable changes in the prevailing situation caused practical hardships as well as panic and helplessness in the circumstances of family illness; Familiar channels of seeking health care could pose additional risks; Personal relations / contacts helped in handling family illness during difficult times; Ways of getting medical consultations and views on the unaccustomed type of health care received; Family illness was an additional stress in the context of other stresses.

Conclusions

Restrictions in accessing health care services caused distress in the circumstances of family illness. Study participants used personal contacts as the reliable source of support to navigate restrictions and obtained health care during an island-wide curfew period.

Oral Presentation - 03

A clinical audit on antibiotic prescription practices in a paediatric unit of a tertiary care hospital in Sri Lanka

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Introduction

Febrile illnesses are the commonest reasons for paediatric admissions. Though most childhood febrile illnesses are viral, empirical antibiotics are commenced due to diagnostic dilemma between viral from bacterial infections. This is one of the contributory factors for the development of antibiotic resistance. The aim of this audit was to find out the correct use of antibiotics in treating children with febrile illnesses.

Methods

Bed Head Tickets (BHTs) of children treated in the University Paediatric Unit, Teaching Hospital Karapitiya, in May and June 2022, were screened to identify children admitted with febrile illnesses. Clinical details, investigation results, antibiotics usage and the final diagnosis were extracted. Data were analyzed through SPSS version 21.0.

Results

Of 722 admissions, 294 (40.7%) children were admitted with febrile illnesses. Of them, 60.2% (n=177) were males. The majority (51%, n=150) belonged to 0-3 years category. The mean (SD)

duration of hospital stay was 3(2.26) days. Respiratory symptoms (61.6%), vomiting (12.6%) and diarrhea (9.9%) remained the main associated symptoms with fever. On 57.5% of occasions children were seen by a doctor before admission and 17.7% of individuals received antibiotics. Whereas in 34.7% (n=102) occasions, prior antibiotics usage was not recorded. Full blood count (81.3%) and C reactive protein (CRP) (74.8%) remained the most commonly ordered investigations. The majority (71.1%) of children received antibiotics during the ward stay. Cefotaxime and Azithromycin were the most commonly used antibiotics with 34% and 17%, respectively. In the final diagnosis, definitive viral illnesses were documented in 20% (n=59) and most (56%, n=33) were treated with antibiotics. Fever over 102°F was associated with a higher tendency of antibiotics usage ($p=0.05$); however, neutrophil leukocytosis and elevated CRP showed no association with antibiotics usage.

Conclusions

There is a high usage of antibiotics for inward children with febrile illnesses. Moreover, most children with confirmed viral illnesses were treated with antibiotics.

Oral Presentation - 04

The spectrum of organisms isolated from wound swabs and the association of mixed or no growth cultures with acute or chronic wounds in a tertiary care hospital, Sri Lanka

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Introduction

Wound swabs are the basic samples that can be taken from any wound. Heavy mixed and no growth culture results make both microbiological assessment and the interpretation of the significance difficult. The aim of this study was to analyze the spectrum of pathogens isolated from wound swabs and to determine the association of mixed and no growths with the type of wounds.

Methods

A retrospective descriptive study was carried out from August to November 2021 in a major tertiary care hospital, in Sri Lanka. Data were collected from culture request forms. Negative, pure and mixed growths were analyzed for pathogens. Multi drug-resistant (MDR) and extensive drug-resistant (XDR) coliforms were analyzed with the nature of the wounds.

Results

There were 652 positive wound swab cultures with 22.7% (n=148) of mixed growths and 13.1% (n=90) non-pathogenic isolates. Of 414 (63.4%) pure growths, 147 (22.5% of total positive) were coliforms. Other predominant organisms isolated were *Staphylococcus aureus* 112 (17.2%), *Pseudomonas spp* 98 (15.0%), and *Acinetobacter* 40 (6.1%).

Among the pure growth coliforms, 69 (46.9%) were non-MDR, followed by 45 (30.6%) MDR and 33 (22.4%) XDR. Among mixed growth coliforms, non-MDR 74 (53.6%), MDR 36 (26.1%) and XDR 33 (23.9%) were identified. The association of MDR with the mixed or pure growth culture was not statistically significant ($p=0.48$).

There were 267 wound swabs of no growth. Seventy seven samples were from diabetic or vascular chronic wounds. The association of mixed growth with chronic wounds ($p=0.002$) and no growth with non-chronic wounds ($p=0.001$) were significant.

Conclusions

Coliforms, *Staphylococcus aureus*, *Pseudomonas*, and *Acinetobacter* are the commonest organisms isolated from wound swabs. The association of mixed growths with chronic wounds and no growths with non-chronic wound swabs appears statistically significant, and in such cases, it is advisable to take better samples such as tissues or aspirations.

Oral Presentation – 05**Clinicopathological features of cystic neutrophilic granulomatous mastitis; a descriptive, cross-sectional, single center study****KB Rojika, TW Wijesiri, TG Liyanage, LKB Mudduwa***Department of Pathology, Faculty of Medicine, University of Ruhuna, Sri Lanka***Introduction**

Cystic neutrophilic granulomatous mastitis (CNGM) is a rare form of granulomatous mastitis (GM) with a distinct histological appearance where the presence of suppurative lipogranuloma is the most characteristic feature. CNGM was not described as a diagnostic entity until the recent past. Its aetiological association with *Corynebacteria* which entails prolonged antibiotic therapy even beyond resolution of symptoms signifies the importance of the histological diagnosis. The aim of this study was to describe clinicopathological features and the proportion of CNGM among specimens with mastitis diagnosed at Department of Pathology, Faculty of Medicine, University of Ruhuna.

Methods

Histology of all inflammatory breast lesions diagnosed at the Department of Pathology, Faculty of Medicine University of Ruhuna, during 2015 - 2020 were reviewed to identify patients with CNGM. Clinical details were obtained from the request forms.

Results

A total of 88 consecutive inflammatory breast lesions were reviewed. GM was identified in 28/88 (31.8%). Of them, 21.4%, 42.9% and 35.7% were in age groups of <30, 31-40 and >41 years respectively. CNGM was diagnosed in 9/88(10.2%). Of them, 33.3%, 55.6% and 11.1% were in age groups of <30, 31-40 and >41 years respectively. One sample (>41 years) had tuberculous mastitis. Patients were presented with a breast lump in all CNGM and 18/19 other GM cases. Granulomas were lobulocentric in all CNGM and in 5/19 other GM cases. Suppuration was noted in all CNGM and 14/19 other GM cases. Either foreign body and/or Langhans giant cells were seen in all CNGM and 18/19 other GM cases. Suppurative lipogranulomas were identified in all CNGM and 2/19 of GM.

Conclusions

CNGM is enables correct diagnosis. Suppurative uncommon and affects a younger age group. Presence of a constellation of characteristic histological features lipogranuloma is not pathognomonic although it is the most characteristic feature

Oral Presentation – 06

Prediction of foetal outcomes at delivery based on maternal anthropometry at tertiary care maternity hospital in Galle District, Sri Lanka

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Introduction

The state of maternal nutrition, denoted by the maternal anthropometric parameters, is found to play a pivotal role in determining the fetal outcomes. This study was conducted to predict the selected fetal outcomes at delivery using maternal anthropometric parameters.

Methods

A cross-sectional study was conducted among randomly selected 333 pregnant mothers admitted for delivery after 28 weeks of POA at Teaching Hospital Mahamodara, Galle. Pregnant mothers who had multiple pregnancies, registered after 12 weeks of gestation, pre-existing disease conditions that might affect the anthropometric parameters and mothers admitted for planned caesarian section were excluded from the study. Weight and height at booking visit were considered as pre-pregnancy weight (PPW) and maternal height (MH) respectively and were extracted from pregnancy record. Pregnancy weight gain (PWG) was calculated using PPW and weight on admission for delivery was extracted from bed head tickets.

Birth weight, maturity and Apgar score at birth were considered as foetal outcomes and ordered; birthweight (low, normal and

macrosomia), maturity based on period of gestation at birth (extreme preterm, preterm and term) and APGAR score at birth (score < 9, 9 and > 9). Ordinal logistic regression (model reduction approach) was performed using Minitab (18 version). Statistical level of significance was considered as 0.05.

Results

The Mean age (SD) of the sample was 29.2 (5.5) years. The sample had mean (SD) for PPW of 55.1 (12.8) kg, MH of 154.7 (5.7) cm and PWG of 9.6 (4.1) kg. PPW (OR=0.96; 95% CI=0.94 to 0.98) and PWG (OR=0.86; 95% CI=0.81 to 0.92) were identified as statistically significant predictors for birth weight. PWG (OR=0.91; 95% CI=0.84 to 0.98) was identified as statistically significant predictor for maturity at delivery. PPW (OR=1.03; 95% CI=1.02 to 1.05) and MH (OR=0.94; 95% CI=0.91 to 0.98) were identified as statistically significant predictors for Apgar score at birth.

Conclusions

Selected fetal outcomes can be predicted using PPW, PWG and MH. These predictions will be beneficial for the early identification of pregnant mothers for problematic foetal outcomes.

Oral Presentation – 07

Hospital acquired infections among patients in Intensive Care Units in Teaching Hospital Karapitiya

UBGWV Balasooriya¹, DSW Arachchi¹, AS Ariyasinghe¹, AMUCM Athapaththu¹, TT Athukorala¹, KRP Ariyadasa¹, SS Wickramasinghe²

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Introduction

Infections that occur after 48 hours of admission to the hospital or within 48 hours of discharge from the hospital are defined as hospital-acquired infections (HAIs) or nosocomial infections. HAIs occur in patients admitted to ICUs lead to high morbidity and mortality. The aim of this study was to assess the prevalence, associated factors, and microorganisms causing HAIs among patients in ICUs of Teaching Hospital, Karapitiya.

Methods

A descriptive cross-sectional study was conducted among these patients using the previous records from September 2020 to October 2021. Definitions of HAIs of the European Centre for Disease Prevention and Control Centre (ECDC) were used for the diagnosis of each HAI type. Data were analyzed using SPSS software (version 20). The Chi-square test was used to assess the factors associated with the development of HAIs at 0.05 significance level.

Results

Of all 290 patients, 56.2% were male, and mean age was 54.6 (SD±16.1). The proportion of adults (20-64 years) and elders (≥65 years) were 65.9% and 32.4% respectively. Among them, 39.7% had diabetes mellitus and 9% had asthma. The prevalence of HAIs among the study sample was 12.1% (35/290) and the majority (80.0%) of them were hospital-acquired pneumonia (HAP). Percentages of blood-stream infections, urinary tract infections, and surgical site infections were 11.4%, 5.7%, and 2.9% respectively. The majority of HAPs were caused by *Acinetobacter* spp. (42.9%) and by *E. coli* (39.3%). Of all HAIs, 54.3% (19/35) were caused by multi-drug resistant organisms. The presence of endotracheal tubes and central venous lines was significantly associated with the development of HAIs in ICU patients ($p < 0.05$) whereas gender, age and the presence of co-morbidities were not associated. Patients with HAIs had higher mortality ($p=0.003$).

Conclusions

The commonest HAI was pneumonia and multidrug resistant Gram-negative bacteria were the commonest organisms causing HAIs in ICU settings.

Sleeping characteristics among primary school children in Gampaha District, Sri Lanka

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Introduction

Sleep plays a vital role in a child's physical and mental wellbeing. Good sleep positively affects growth and development as well as psychological wellbeing. The aim of the study was to describe sleeping characteristics among primary school children in Gampaha District, Sri Lanka.

Methods

A descriptive cross-sectional study was conducted among 340 primary school children aged 5-10 years in the Gampaha district. Children with neurological and psychological disorders were excluded from the study. Non-validated locally modified self-administered questionnaire to be completed by parents was used for data collection. Data analysis was done by SPSS version 25.0.

Results

The mean (SD) age of the study sample was 7.28 (1.57) years, with a female majority (n=185; 54.4%). The majority (n=193; 56.8%) did not have a specific sleep time for a day.

All the children slept on a bed, and the majority (n=227; 66.8%) slept with their parents, sharing the same bed. The majority (n=247; 72.6%) have watched screens before sleeping at night. One fourth of children wet the bed during sleep while 26.8% (n=91) woke up due to bad dreams at night. Twenty-two per cent (n=75) of the participants reported one or more sleeping disturbances such as awake during night (n=46; 13.7%), snoring (n=31;9.1%), talking in sleep (n=60;17.6%), teeth grinding (16;4.7%) and day time sleepiness (n=46;13.5%). Male gender (OR=1.49) and sharing parents' beds to sleep (OR=1.16) were associated with sleep disturbances. In the sample, 22% of participants reported at least one sleep disturbance.

Conclusions

Sleep disturbances of different levels were noted among primary school children in the study sample with waking up during the night and talking in sleep as the commonest disturbances. Having at least one sleep disturbance was associated with male gender and sharing the bed with parents.

Oral Presentation - 09

Effectiveness of two different protocols of daily chlorhexidine bathing in the prevention of nosocomial acquisition of multi-drug resistant pathogens and *Candida* species in the intensive care set-up at a tertiary care hospital, Sri Lanka**PM Sapukotana¹, DLB Piyasiri¹, ILAN Darshana²**¹Department of Microbiology, Teaching Hospital Karapitiya, Galle, Sri Lanka²Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka**Introduction**

Healthcare associated infections (HAI) due to multi-drug resistant organisms (MDRO) and *Candida* in the intensive care set-up (ICU) increase mortality and morbidity. A large proportion of HAIs are preventable, however, many interventions are complex and challenging. The aim of the study was to assess whether daily chlorhexidine gluconate (CHG) bathing is effective in reducing the nosocomial acquisition of MDROs and *Candida* species in adults in ICUs.

Methods

A pre and post intervention study was carried out on patients who were admitted and staying for 48 hours or more in the two main ICUs with a total of 14 beds in a tertiary care hospital, over a period of 4 months from November 2019 to March 2020.

During two month pre-intervention period, soap and water bath was continued in both ICUs. During next 2 months, 2% chlorhexidine bath was introduced to both ICUs but one ICU followed the CHG leave-on protocol (CHG not washed off till next bath) while the other ICU followed the washout protocol.

Screening cultures were done on admission to ICU and on every 3rd day to assess acquisition of MDRO and *Candida* throughout the study period.

Results

Intervention (Both CHG bathing protocols) vs pre-intervention (RR, 0.721; $p=0.03$), and CHG leave-on protocol vs pre-intervention (RR, 0.652; $p=0.04$) had statistically significant difference in reduction of the nosocomial acquisition of MDROs and *Candida* species. No statistically significant difference of reduction was identified between CHG washout protocol vs pre-intervention or between CHG leave-on protocol vs CHG washout protocol. Both CHG washout protocol and leave-on protocol were less likely to have nosocomial acquisition compared to normal soap and water bath.

Conclusions

Daily bathing with 2% chlorhexidine can reduce nosocomial acquisition of MDROs and *Candida* significantly in the form of either protocol; leave-on or washout; compared to soap and water only bath.

Oral Presentation - 10

Papillary thyroid micro-carcinoma; a single centre study to unravel the opportunity for active surveillance, Department of Pathology, Faculty of Medicine, University of Ruhuna

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Department of Pathology, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka

Introduction

Most of papillary thyroid micro-carcinomas (PTMCs) have an excellent long-term prognosis. Therefore, the traditional surgical management of PTMC is being reconsidered. Active surveillance for PTMC has been proposed as a promising management strategy to reduce the burden of surgery. However, some PTMCs can have aggressive behavior (high-risk PTMCs) which is a barrier for active surveillance. Aim of the study was to determine the proportion of high-risk PTMC, based on histopathology, in a cohort of patients with PTMC diagnosed at a single Histopathology unit over a 3-year period.

Methods

Histopathology slides and the worksheets of all PTMCs diagnosed at our unit from 2018 to 2020 were reviewed. PTMCs with at least one histopathological feature indicating aggressive behaviour were classified as high-risk PTMC.

Results

A total of 60 PTMCs comprising high-risk 56/60 (93.3%, mean age 40.8 years) and low-risk 04/60 (6.6%, mean age 50.0 years) were included

in this descriptive study (male: female = 1:19). Only 21/60 (35%) had a pre-operative diagnosis of papillary carcinoma by cytology and 39/60 (65%) were incidental findings in thyroids resected for a benign pathology.

Out of all histological high-risk features, multicentricity was seen in 15/60 (25%) while 19/60 (31.6%) had PTMCs of > 6 mm diameter (mean; high-risk; 4.05 mm low-risk; 3.0 mm). Other high-risk features present were surgical margin involvement (13/60 = 21.7%), lympho-vascular invasion (18/60 = 30%), desmoplastic fibrosis (9/60 = 15%) and infiltrative margins (55/60 = 91.7%).

Lymph nodes were available for examination in 10 and 2/10 had metastatic deposits in level IV lymph nodes.

Conclusions

A very high proportion of PTMCs with a younger mean age had been of high-risk category which discourages active surveillance for PTMC in our setting.

Oral Presentation - 11

Phenotypic and genotypic characterization of clinically significant carbapenem resistant *Klebsiella pneumoniae* isolates in a tertiary care hospital in Sri LankaMCT Jayasundera, DLB Piyasiri*Department of Microbiology, Teaching Hospital Karapitiya, Galle, Sri Lanka***Introduction**

Klebsiella pneumoniae is a common organism to produce carbapenemases causing life-threatening infections. Identification of those carbapenemases is important to optimize the treatment, to establish infection control measures, and to assess epidemiology. In Sri Lanka, only limited studies have complete molecular analysis.

Aims of the study were to describe the phenotypic and genotypic characterization of clinically significant carbapenem-resistant *K.pneumoniae* isolates in a tertiary care hospital together with factors associated with it.

Methods

This descriptive cross-sectional study was carried out for four months in year 2018 at the microbiology laboratory of a tertiary care hospital.

According to the calculated sample size, 226 *K.pneumoniae* isolates from clinically significant samples (blood, sterile fluids, sputum, pus and urine) were identified by RapID-ONE system. Antibiotic sensitivity was tested by disk diffusion method according to CLSI-M100 (27th edition) guidelines. Carbapenem-resistant isolates were tested with Modified Hodge test (MHT) and EDTA inhibition test. Gene-XpertTMCarba-R multiplex PCR was used for molecular analysis of carbapenem-resistant isolates.

Associated factors were assessed using an interviewer administered questionnaire.

Results

There were 44 (19%) carbapenem-resistant *K. pneumoniae* isolates. In bacteraemic patients 40% of the *K.pneumoniae* blood culture isolates were carbapenem-resistant. Amikacin was the most sensitive antibiotic (52.3%) in carbapenem-resistant group.

Carbapenemase production was confirmed in 43 isolates (97.7%) while MHT was positive in 32 (72.7%) and EDTA inhibition test was positive in 19 (43.2%) isolates. The commonest carbapenemase detected was OXA-48 like, followed by NDM and KPC. OXA-48 was positive in 65.6% of the MHT positive isolates.

Recent hospital stays (77.3%), ICU stay (31.8%), presence of invasive devices (40.9%), exposure to carbapenems (25%), cephalosporins (36.4%), other beta-lactam antibiotics (18.2%), fluoro-quinolones (6.8%), presence of renal insufficiency (25%) and being a post-surgical patient (20.5%) were significantly associated ($p < 0.05$) with carbapenem resistance.

Conclusions

Higher percentage of carbapenem-resistant *K. pneumoniae* isolates were identified. Further, recent hospital and ICU stay, and exposure to carbapenems, cephalosporins, other beta-lactam antibiotics and fluoroquinolones were significantly associated with carbapenem resistance.

Oral Presentation -12

Serum vitamin D level among 1 to 5-year-old children in Galle Municipality and Bope-Poddala MOH area

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Introduction

Vitamin D deficiency (VDD) is linked with multiple co-morbidities and considered as an emerging public health concern worldwide. Data on the prevalence of VDD in the age group 1 to 5 years is sparse in Sri Lanka. The aim of the study was to determine the prevalence and associated risk factors of vitamin D deficiency among children aged 1 to 5 years.

Methods

A cross-sectional study was carried out among the children aged 1 to 5 years in the Galle municipality area and Bope-Poddala Medical Officer of Health (MOH) area, Galle District, Southern Province. A representative sample was obtained by the cluster sampling method.

Serum 25(OH)D concentration was measured. Monthly income, birth weight, weaning practices, pregnancy-related events, exposure to sunlight and the patterns of consumption of vitamin D-rich foods were assessed. A cut-off value for vitamin D status was defined according to the global consensus in 2016.

Results

Among the 100 children, the mean (SD) serum 25(OH)D level was 86.4 (24.06) nmol/l. The prevalence of VDD was 35%. Mean birth weight was significantly lower among the children who were VDD compared to children with sufficient vitamin D [3.4 (0.5) vs 3.7 (0.7); $p=0.04$]. Mean exposure to sunlight was significantly lower among children who were VDD when compared to children with sufficient vitamin D [1.2 (0.4) vs 3.5 (1.1); $p<0.01$]. In logistic regression analysis, only less exposure to sunlight has been confirmed to have an effect on vitamin D deficiency (odds ratio [OR], 2.7; 95% confidence interval [CI], 1.8 to 4.1).

Conclusions

VDD is a common problem among the children aged 1 to 5 years in the study area and the most important risk factor for vitamin D deficiency is less exposure to sunlight.

Poster Presentation - 01**Cosmetic effects of post thyroidectomy scar and evaluation of patient satisfaction****PL Wasula, J Ariyaratna, TPO Gunarathne***Oncosurgical unit, Teaching Hospital Karapitiya, Galle, Sri Lanka***Introduction**

Thyroidectomy is a common surgical procedure done in Sri Lanka. Patients concern about thyroidectomy scar as it is an exposed area. Objective of this study is to assess the patient satisfaction on post thyroidectomy scar.

Methods

Retrospective analysis of 50 patients who underwent thyroidectomy was done with regards to the prominence of scar and patient satisfaction. Scar prominence was graded and level of patient satisfaction was obtained using a questionnaire.

Results

Age range of patients was 22-58 years. Out of 50 patients, 40% were highly satisfied, 42% were satisfied but preferred to have a less prominent scar, 14% patients were not satisfied and 4% patients were extremely unsatisfied.

Of the patients who were satisfied about the scar, 65% had minimal scar and 34% had visible scar. Among them 43% were in 20 to 40 year-age group and 56% were in 40 to 60 year-age group.

Of the patients who were unsatisfied about the scar, 33.3% had visible scar, 66.6% had hypertrophic scar. Among them 44.4% were in 20 to 40 year-age group and 55.5% were in 40 to 60 year- age group.

Conclusions

According to this study, a majority of the patients were satisfied about their post thyroidectomy scar.

Poster Presentation - 02

Histological types of breast cancers and their hormone receptor status presented to a tertiary care hospital in Sri Lanka

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Introduction

Breast cancer is one of the commonest cancers (CA) in Sri Lanka. Hormone Receptor status of breast tissue is important in managing breast cancer. The aim of this study was to assess the histological types of breast cancer and their association between receptor status.

Methods

A retrospective study was done with 102 cases of mastectomy. Receptor status was assessed according to five luminal categories; luminal A type, luminal B HER 2 positive type, luminal B HER 2 negative type, non-luminal HER 2 positive type and triple negative type. Incidence of above categories in each histological type of breast CA was assessed.

Results

Percentages of nonspecific type CA, lobular CA and mucinous CA were 90 %, 09% and 1% respectively. Mucinous cases were excluded from the analysis due to negligible number of cases.

In NST CA, luminal A type, luminal B HER 2 positive type, luminal B HER 2 negative type non luminal HER 2 positive type and triple negative type were 21.7%, 20.7%, 29.3%, 12% and 16.3% respectively.

In invasive lobular CA, luminal A type, luminal B HER 2 positive type, luminal B HER 2 negative type non luminal HER 2 positive type and triple negative type were 22%, 44%, 22%, 0% and 11% respectively.

Conclusions

Majority of the cases belonged to the nonspecific type CA and the commonest type of receptor detected was luminal B HER 2 negative type.

Poster Presentation - 03

Colonoscopy withdrawal time as quality determine factor: experience in a tertiary care center in Sri Lanka**RMP Vishwajith¹, RPS_Prasanga², I Ranasinghe²**¹*Teaching Hospital Kalutara, Sri Lanka*²*Teaching hospital Rathnapura, Sri Lanka***Introduction**

Colonoscopy is a minimally invasive diagnostic modality which is widely used in Sri Lanka. The quality of colonoscopy is determined by adenoma detection rate (ADR). According to the European colonoscopy quality investigation (ECQI) group reveals, ADR depends on several factors, including cecal intubation rate, colonoscopy withdrawal time, quality of bowel preparation and adherence to surveillance guidelines, etc. The Current recommended minimum time for colonoscopy withdrawal is 6 min.

The aim of the study was to asses time spent on colonoscopy withdrawal in a selected group of patients.

Methods

The study was designed to assess 150 patients undergoing colonoscopy over a period of five months in a single tertiary care center in Sri Lanka. The patients who achieved cecal intubation with bowel preparation equal or more than 6 points according to the Boston Bowel Preparation Scale (BBPS) were included.

Results

In 107 out of 150 patients, colonoscopy withdrawal time was less than 6 min (mean time of 4.25 min). The rest of the patients' withdrawal mean time was 6.32 min and the total meantime was 5.28 min. In 28.6% of patients, colonoscopy withdrawal time was more than 6 min.

Conclusions

Colonoscopy withdrawal time was not satisfactory in majority of the patients and in keeping with current recommendations.

Poster Presentation - 04

Use of antibiotics in post-traumatic patients with an open fracture in a tertiary care center in Sri Lanka

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Introduction

In each casualty, significant number of patients with open fractures (OF) get admitted to emergency departments (ED). After excluding life and limb-threatening conditions management would direct towards possible action to prevent wound infection. According to the British association of plastic reconstructive and aesthetic surgeons (BAPRAS), initial intravenous (IV) antibiotics within the first three hours from trauma and wound excision within 24 hours is recommended. IV cefuroxime double dose or IV co-amoxiclav and if penicillin allergy IV clindamycin is recommended. This study was designed to assess the adherence to BAPRAS guidelines when using antibiotics in post-traumatic patients with an open fracture.

Methods

Data from 200 patients following OF in a single tertiary care center over six-month were analyzed. Patients on immunosuppressive medications and patients with diabetes were excluded.

Results

Out of 200 patients, 110 (55%) received cefuroxime. Out of 110 patients, 90 received cefuroxime in combination with metronidazole. Only 11 (5.5%) patients received cefuroxime as a double dose. The rest of the patients (n=90, 45%) received IV co-amoxiclav. Sixty-five patients received metronidazole in combination with co-amoxiclav. Out of 200, 180 (90%) patients received antibiotics within first 3 hours. Only 18% of patients received the correct antibiotic and with the correct dose according to BAPRAS recommendation.

Conclusions

Non-adherence to BAPRAS in prescribing antibiotics in post-traumatic patients with an open fracture is common. A rational approach in using antibiotics is necessary for the management of open fractures.

Poster Presentation - 05**Post-vaccination symptoms of COVID-19 vaccines among adults in Galle****PTA Thilakarathna, HLK Prabodhi, WVRTDG Bandara***Department of Medical Laboratory Science, Faculty of Allied Health Sciences, University of Ruhuna, Galle, Sri Lanka***Introduction**

The safety of all COVID-19 vaccines has been proven clinically. However, there was an initial reluctance by the public to obtain COVID-19 vaccines due to reported side effects. This study was conducted to evaluate the post-vaccination symptoms (PVSs) of COVID-19 vaccines among adults in Galle.

Methods

A descriptive cross-sectional study was conducted using a purposive, convenient sampling technique. Vaccinated adults (n=418) aged 30-59 years, living in the Galle district were recruited for the study. A self-administered pre-tested questionnaire was used to collect demographic data and PVSs of COVID-19 vaccines within two weeks after the 2nd dose and 3rd dose of vaccination. The results were analyzed using SPSS-25.

Results

Out of 418 participants, 69.6% (n=291) were females. All participants (n=418) had obtained the first dose. Only 92% (n=384) and 26% (n=110) had obtained the subsequent second and third doses respectively. About 51% (n=213) vaccinated participants with 1st dose, reported PVSs.

The percentages of PVSs with Sinopharm, Pfizer, and AstraZeneca in 1st dose were 50%, 63%, and 83%, respectively. About 29% (n=111) and 58% (n=63) experienced PVSs after 2nd doses and 3rd doses. The occurrences of PVSs with Sinopharm, Pfizer, and AstraZeneca at the 2nd dose were 42%, 36%, and 33%, of the recipients respectively. All the recipients of 3rd dose had obtained Pfizer. The main PVSs reported were fever (40%), muscle/joint pain (34%), headache (33%), chills (23%), pain at the injection site (21%), and fatigue (17%) after the 1st dose and fever (18%), muscle/joint pain (15%), and headache (15%) after the 2nd dose. A significant percentage of participants had experienced PVSs after the 3rd dose; fever (48%), pain at the injection site (45%), muscle/joint pain (45%), headache (42%), and chills (29%). There were no significant differences in reported PVSs in Sinopharm, Pfizer, and AstraZeneca vaccines ($p>0.05$).

Conclusions

Fever, muscle/joint pain, headache, chills, pain at the site of injection, and fatigue were the frequently reported PVSs after the COVID-19 vaccination. The overall reported percentages of PVSs at the 3rd dose were higher compared to the 1st and 2nd doses.

Poster Presentation - 06

Multiple chest trauma in a victim of road traffic collision

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Introduction

Trauma is a leading cause of death worldwide and increasingly seen with escalating numbers of high-speed vehicle accidents. Blunt chest trauma constitutes 70% of all chest trauma while the rest is penetrating in nature. When it comes to poly trauma, 60% of them are complicated with thoracic trauma and bears a mortality rate of 20-25%. Thoracic injuries varied from simple rib fractures to intra-thoracic organ injuries. Severe respiratory dysfunction is the primary complication of flail chest along with underlying lung damage. Traumatic aortic dissection is the second commonest cause of death in blunt trauma and the main treatment modality is endovascular or surgical correction with optimizing the haemodynamics to prevent further dissection.

Case presentation

Primary survey of a 54 year-old car driver following high speed collision, revealed left sided flail segment with underlying haemopneumothorax, class III haemorrhage and reduced level of consciousness (E3V4M6).

He had multiple fractures including fractures in right femur, right radius and ulna. Focus assessment of ultrasound did not reveal any intra-abdominal injuries. Following initial resuscitation, a massive transfusion protocol was activated. Once he was stabilized, non-contrast CT brain, contrast enhanced CT abdomen and chest were performed which revealed an aortic dissection (AD) extending from infundibulum to upper descending thoracic aorta, multiple fractures in left 5th to 10th ribs with flail segment and underlying haemopneumothorax. It was decided to intubate and ventilate with a plan of urgent corrective surgery for AD. Intra-venous labetalol was started to prevent further dissection. Unfortunately, patient expired before surgery despite resuscitation.

Conclusions

It is highly challenging to maintain haemodynamic stability, optimizing parameters to minimize further AD as well as intubation and ventilation of a patient with flail chest. Immediate interventions may reduce mortality and morbidity, but even with prompt and proper medical care, negative outcomes are reported.

Poster Presentation - 07

An audit on total thyroidectomy cases done for thyroid carcinoma in an oncosurgical unit in a tertiary care hospital in Sri Lanka**PL Wasula, J Ariyaratne, OTP Gunaratne***Teaching Hospital Karapitiya, Galle, Sri Lanka***Introduction**

Thyroid carcinoma is the second most common cancer in females in Sri Lanka according to the national cancer registry data 2019. Patients that present with thyroid malignancy undergo thyroidectomy with or without cervical lymph node dissection and post-operative radioactive Iodine (RAI) therapy. The aim of this study was to describe the histological type, age gender, status of lymph node dissection, and post-operative RAI therapy in total thyroidectomy cases included in this audit.

Methods

Retrospective analysis of data was carried out in 50 thyroidectomy cases which were done at oncosurgical unit, Teaching Hospital Karapitiya.

Results

Out of 50 patients 40 (80%) were females. The mean age (SD) for females was 41 (8.66) years and mean (SD) age for males was 41.4 (6.07) years. Out of all thyroid cancers 41(82%) patients had papillary carcinoma, 08 (16%) patients had follicular thyroid cancer, 02 (04%) patients had medullary cancer and one patient (2%) had anaplastic cancer. Cervical lymph node dissection done in 14 (28%) patients in which 12 had undergone only the central neck dissection whereas 02 had undergone both central and lateral neck dissection. Fifteen (30%) patients had undergone RAI therapy.

Conclusions

The majority of patients were young females and overall commonest cancer type was papillary carcinoma followed by follicular carcinoma. One fourth of patients had undergone cervical lymph node dissection and one third of patients received RAI therapy.

Poster Presentation - 08

Time lapse between the admission and surgical intervention in orthopaedic trauma in a tertiary care hospital in Sri Lanka

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Introduction

Interval between orthopaedic trauma and surgical treatment affects the outcome of surgery. The aim of this study was to assess the time lapse between the admission and surgical intervention in orthopaedic trauma.

Methods

A retrospective study was conducted and data were collected from 70 patients with orthopaedic trauma presented to Teaching Hospital Karapitiya during the month of January in 2022. Injuries were categorized based on the procedures carried out as the treatment; as minor, intermediate and major. Closed reduction under anaesthesia and/or Plaster of Paris cast application, were taken as minor procedures. K wire insertion and external fixation of long bone fractures were taken as intermediate procedures. Surgery for hip fractures and internal fixation of long bone fractures were taken as major procedures.

Results

Majority of the admissions were male (90%) and the mean age (SD) was 36 (5.5) years. Of the trauma patients 60% was due to road traffic accidents followed by 35% domestic injuries 5% other injuries. Percentage of patients who had other injuries in addition to orthopaedic trauma was 10%.

Overall mean (SD) time lapse from admission to surgical intervention was 02 (2.77) days. Mean (SD) time lapse for both minor and intermediate procedures was < 24 (0.64) hours. For major surgeries mean (SD) time lapse was 04 (3.33) days. Patients who had other injuries in addition to orthopaedic trauma had a mean time lapse of 02 days.

Conclusions

Minor and intermediate orthopaedic procedures had relatively low time lapse than major orthopaedic procedures and patients with other associated injuries. Causes for the enhanced time gap should be assessed and addressed as it will help in reducing the hospital cost and patient morbidity.

Poster Presentation - 09

Anatomical variations of renal vein in a group of Sri Lankan cadavers

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Introduction

Renal vein (RV) emerges from the hilum of the kidney in front of the renal artery and drains into the inferior vena cava on the right side of the median plane. But there are several variations in the renal venous anatomy. Clear knowledge of these variations is important in interventional procedures. The aim of the study was to identify the variations in the renal venous anatomy including its anatomical relations and the pattern of its tributaries.

Methods

The morphology and anatomical relations of the RV was studied in 21 (13 female) cadavers during dissections of the posterior abdominal wall in the Department of Anatomy, Faculty of Medicine, University of Ruhuna. A total of 42 RVs (21 right and 21 left) were studied.

Results

Of the total 42 RVs 27 (64.2%) showed deviation from normal anatomy. Out of the 27 abnormal RVs, abnormal origins were observed in 4 (14.8%) while 20 (74%) had tributaries of variable length (0.5 cm – 7 cm) outside the hilum. Six (22.3%) of the abnormal RVs had abnormal communication with lumbar vein or right gonadal vein and interestingly with the left gastric vein in one case. Five (18.5%) RVs passed deep to the main renal artery while none of the veins showed abnormal relationship with the ureter.

Conclusions

The renal vein shows a considerable percentage of anatomical variations in its origin, morphology and communications. Sound knowledge of this variations is important in renal transplant surgery and other interventional procedures.