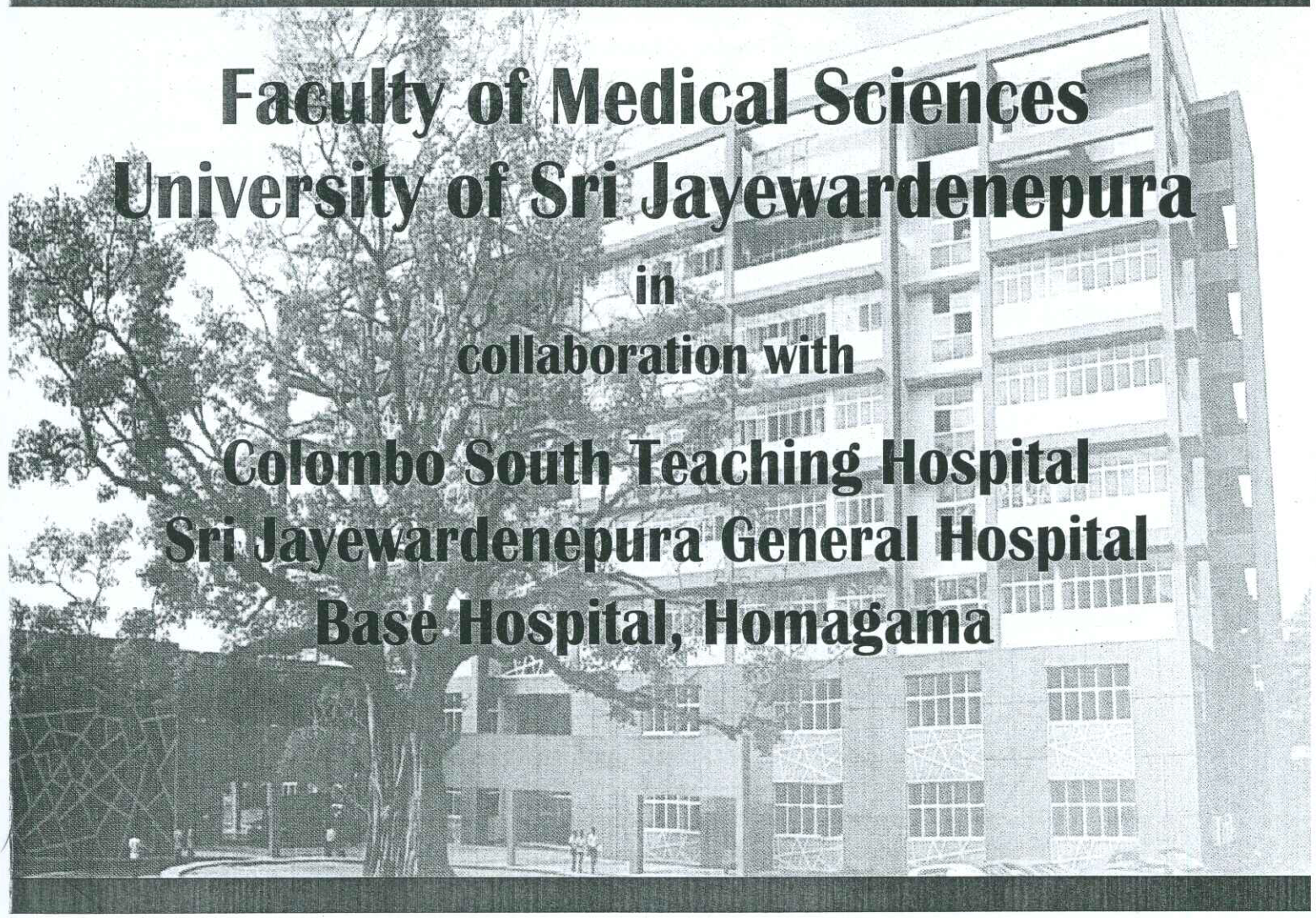
International Conference on Health Sciences 2018



Faculty of Medical Sciences
University of Sri Jayewardenepura

in

collaboration with

Colombo South Teaching Hospital
Sri Jayewardenepura General Hospital
Base Hospital, Homagama

"Beyond Borders Towards Excellence"

Book of Proceedings

7th to 9th October 2018

Waters Edge, Colombo

Objectives: To identify socio-demographic risk factors of CL in Maho, Polpithigama, Galgamuwa and Giribawa MOH areas in Kurunegala District, Sri Lanka.
Methods: A descriptive cross-sectional household survey was conducted on demographic, social and economic factors of CL patients as reported to MOH offices from 2013-2016 using a pre-tested questionnaire. Results were entered to Microsoft Excel and analyzed using Minitab 17.0 software package.
Results: A total of 101 patients responded. The majority (55.45 %, n=56) of these respondents are males while, most patients are between the age 21-40 (41.58%, n=42). The marital status of the majority (78.22 %, n=79) of patients were married. A percentage of 64.35 % (n=65) had received education at least up to Ordinary Level. The average family size of patients was predominantly ranged from 4-6 (54.46%, n=55). Interestingly, more than half of the employed patients (57.35%, n=39 out of 69) were farmers. Most common house condition of patients was noted as "Moderate" (51.49%, n=52) followed by "Poor" house condition (15.84%, n=16). The monthly income level of the majority (47.52%, n=48) was observed as <Rs. 25,000. Overall, the level of awareness on patients on Leishmaniasis disease was noted as "Poor" (97.03%, n=98) among the study population.
Conclusions: Outdoor occupations and poor knowledge about the disease could be considered as potential socio-economic risk factors for the spread of disease in the area. Lack of knowledge on the disease among people living in endemic areas may cause serious implications in disease transmission.

PP 22

Detection of carbapenemase producing *Enterobacteriaceae* in two tertiary care hospitals

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Background: *Enterobacteriaceae* is a large family of Gram negative bacilli causing a range of infections. Carbapenemase producing *Enterobacteriaceae* have emerged as a global threat.
Objectives: To confirm the carbapenemase production of collected *Enterobacteriaceae* isolates from clinical specimens and to correlate the carbapenemase production with the age, gender and the duration of hospital stay.
Methods: A descriptive cross sectional study was carried out using 120 clinical isolates of *Enterobacteriaceae* at Colombo South Teaching Hospital and Sri Jayewardenepura General Hospital from 22nd November to 30th November 2017. Information regarding the clinical history of the relevant patients was gathered. All isolates were identified up to species level by API 20E kits. Resistance to carbapenem was detected using meropenem, imipenem and ertapenem. Modified Hodge Test was performed to confirm the carbapenemase production.
Results: Out of 120 isolates, 14 (11.67%) were resistant to at least one of the carbapenems tested. Carbapenemase production was confirmed in 10 (8.3%) isolates. The majority of the confirmed isolates were *Klebsiella pneumoniae* (4, 40%) followed by *Klebsiella oxytoca* (2, 20%), *Escherichia coli* (1, 10%), *Serratia marcescens* (1, 10%), *Enterobacter cloacae* (1, 10%) and *Proteus mirabilis* (1, 10%). From carbapenemase producing isolates, 6 were from urine specimens (60%), 2 were from catheter tips (20%), 1 each from a wound swab (10%) and bronchial aspirate (10%). Eight (80%) out of the carbapenemase producing *Enterobacteriaceae* harboring patients were males and 8 (80%) were aged above 50 years. Mean duration of hospital stay is 7.2 days (±SD 5.65 days).

Conclusions: This study shows 8.3% of the clinical isolates were carbapenemase producers. It is a significantly higher proportion which is in line with the recent studies done in India and other Asian countries. Giving false positive results for cefotaxime-Munich (CTX-M) positive and ampicillin-C (AmpC) hyper producing *Enterobacteriaceae* and false negative results for New Delhi Mettalo-β-lactamase (NDM) producers are limitations of Modified Hodge Test.

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Imprint cytology: A supportive diagnostic method for *Helicobacter pylori* in dyspeptic patients

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Background: Diagnosis of *Helicobacter pylori* in Sri Lanka is currently being carried out by histological interpretation of a gastric biopsy specimen. This process takes at least 3-5 days and needs specialized equipment and trained personnel. Using a combination of diagnostic methods can improve the diagnostic accuracy.

Objectives: To assess the usefulness of two staining methods of imprint cytology for diagnosis of *H. pylori* in gastric biopsy specimens.

Methods: Gastric biopsy specimens obtained from dyspeptic patients attending routine upper gastrointestinal endoscopy, were placed on glass slides to obtain imprints. The imprints were air-dried, stained with Toluidine blue and Giemsa stains and observed for the presence of *H. pylori* using light microscopy. The diagnosis was confirmed by a consultant pathologist blinded to the histology results. The sensitivity, specificity, positive predictive value (PVP) and negative predictive value (NPV) of each stain were calculated and benchmarked against histological diagnosis.

Results: Out of 55 patients, 7 were positive for *H. pylori* by histology. Five were positive for *H. pylori* by Toluidine blue stain and 4 by Giemsa stain. The sensitivity of Toluidine blue stain was higher than the Giemsa stain (57.1% and 42.9% respectively) while the specificity was equal (97.9%). PVP and NVP were 80.0% and 94.0% for the Toluidine blue stain and 75.0% and 92.2% for the Giemsa stain, respectively. Giemsa stain had a better discrimination for identification of *H. pylori* bacteria. The cost of carrying out imprint cytology was less than Rs. 5.00 for each stain and the results could be given in less than an hour from specimen collection.

Conclusions: Using imprint cytology for the diagnosis of *H. pylori* is a rapid, simple and cost effective method that can support histological diagnosis.

Acknowledgement: This work was supported by the research grant funded by the National Science Foundation, Sri Lanka (Research Grant No: NSF/SCH/2015/04) and the University of Sri Jayewardenepura (Research Grant No: ASP/01/RE/MED/2017/28).