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**ABSTRACT**

**Aims:** This study aimed to assess association of selected HLA (Human Leukocyte antigen) alleles; HLA-DQA1\*0102, HLA-DQA1\*0103, HLA-DQB1\*0301 with H. pylori infection among a Sri Lankan dyspeptic patient population.

**Methods:** Gastric biopsy specimens from 100 patients who underwent upper gastrointestinal endoscopy at a tertiary care hospital were investigated in this study. Presence of H. pylori was confirmed using histology and PCR. Histological interpretation was done using Modified 'Sydney system'. The presence of HLA alleles and selected virulence genes of H. pylori; cagA, vacA and baba2, were determined using Polymerase Chain Reaction (PCR).

**Results:** Mild to moderate inflammation was observed in 96 biopsy specimens. Alleles, HLA-DQA1\*0102, HLA-DQA1\*0103, HLA-DQB1\*0301 was seen 39%, 31% and 20% respectively in the 100 dyspeptic patients. Out of 25 H. pylori confirmed patients (by PCR or histology), 56% (14/25), 36% (9/25) and 12% (3/25) were positive for HLA-DQA1\*0102, HLA-DQA1\*0103 and HLA-DQB1\*0301 alleles respectively. Out of 22 H. pylori PCR positive biopsies, one was positive for cagA with vacA s2/m1 strain type, 7 were positive for baba2 and histological examination revealed mild to moderate inflammation. H. pylori infection showed significant association with HLA-DQA1\*0102 ( $p=0.044$ ) and inflammation ( $p=0.030$ ). HLA-DQA1\*0103 and HLA-DQB1\*0301 showed no significant association with either H. pylori infection, inflammation or the presence of virulence genes.

**Conclusion:** HLA-DQA1\*0102 allele has a significant association with H. pylori infection while HLA-DQA1\*0103 and HLA-DQB1\*0301 shows no significant association in a Sri Lankan dyspeptic patient population.

**Keywords** – Dyspepsia, Human Leukocyte Antigen, HLA-DQ, Helicobacter pylori, virulence genes.



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**Structural transition of kidney cystatin in dimethylnitrosamine-induced renal cancer in rats: identification as a novel biomarker for kidney cancer and prognosis**

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**ABSTRACT**

**In our study, renal cancer is induced in rats making use of dimethylnitrosamine**

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# Abstract PR385: Acute Renal Failure: Assessment of Risk Factors Among Postoperative Patients in A Tertiary Care Hospital in Sri Lanka

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**Background & Objectives:** Despite recent advances in understanding the pathophysiology and treatment modalities, Acute Kidney Injury (AKI) remains a common condition among post-operative patients who are admitted to the intensive care unit<sup>1</sup>. The determinants of renal function are multi factorial and are profoundly altered in the peri-operative period. The objective of this study was to identify factors associated with the development of postoperative AKI and its clinical outcomes among non cardiac post surgical patients admitted to the surgical intensive care unit.

**Materials & Methods:** A prospective study was carried out at the surgical intensive care unit, Teaching Hospital Anuradhapura, over a 6 month period in 2013. Demographic, clinical and physiological data of patients were recorded on admission and during the course of illness, to assess the pre-operative status, intra-operative and post-operative complications. Acute renal failure (ARF) was diagnosed according to the AKIN criteria<sup>2</sup>. Organ dysfunction was assessed using SOFA score<sup>3</sup>. Univariate analysis was done to determine significant association of variables ( $p < 0.05$ ) using Chi-square test.

**Results:** Thirty eight patients met the inclusion criteria during the study period. Fourteen (37%) patients developed ARF and among them 10 (27%) needed either intermittent haemodialysis or continuous renal replacement therapy. Age, gender and BMI were not significantly associated with development of post-operative ARF. Acute lung injury/ ARDS ( $p=0.048$ ), SOFA score on admission ( $p=0.048$ ) and ASA grading ( $p=0.038$ ) were significantly associated with ARF. Type of surgery (emergency or elective), duration of surgery, severity of surgery and blood transfusion during surgery were not significantly associated with ARF. Development of ARF was significantly associated with increased length of ICU stay.

**Conclusion:** In our study important risk factors for development of ARF peri-operatively were acute lung injury/ ARDS, SOFA score on admission and ASA grading.

## References:

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