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Assessment of causative risk factors for ulcerative colitis in patients attending selected Sri Lankan hospitals

Dhananjaya AADY[1], Kodikara CS[1], Jayasinghe VMA[1], Sagara DCRR[1], Nilakshi MPCI[1], Wijesiri WA[2], Prathapan S[2]

[1]Faculty of Medical Sciences, University of Sri Jayewardenepura, [2]Department of Community Medicine, Faculty of Medical Sciences, University of Sri Jayewardenepura

Objectives: To determine the risk factors for developing ulcerative colitis among diagnosed Sri Lankan patients above the age of 18, visiting Colombo South Teaching Hospital.

Methods: The study was an age and sex matched case control study. The total case and control study sample was 76 and 152 respectively. Case sample was selected from already diagnosed ulcerative colitis patients and control sample from patients attending Colombo South Teaching Hospital. Exclusion criteria for both categories were patients who had symptoms related to gastroenterology tract or any malignant conditions. Interviewer administered questionnaire was used as our study instrument.

Results: First degree family history (odds ratio (OR) 6.4 (95% confidence intervals (CI)1.2-32.6), alcohol consumption (OR 2.4, CI 1.0-5.7), habitual smoking (OR2.2 CI 1.1-4.4), Ayurvedic drug use (OR 8.8, CI 1.8-42.6) and frequent antibiotic usage (OR 2.4, CI 1.0-5.7) were found to be significant risk factors. Also irregularity in taking meals (OR 2.0, CI 1.1-3.7), being non-vegetarian (OR 6.1, CI 1.3-26), reduced consumption of green leaves(OR 2.0, CI 1.0-3.7), frequent fatty food consumption (OR 2.6, CI 1.4-4.7) and frequent milk product consumption (OR 2.8, CI 1.4-5.4) were significant risk factors.

Conclusions: Positive family history, irregularity in taking meals, being non-vegetarian, reduced green leaves consumption, frequent fast food and frequent milk product consumption as well as alcohol consumption, habitual smoking, ayurvedic drug use and frequent antibiotic usage showed to be significant risk factors for the development of ulcerative colitis.

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Dietary patterns and behavioral risk factors in *Helicobacter pylori* infection in a Sri Lankan dyspeptic patient population

Arachchi AMPS[1], Weerasekera MM[1], Fernando SSN[1], Weerasekera D[2], Senevirathna MBS[3], Gunasekara TDCP[1]

[1]Department of Microbiology, [2]Department of Surgery, [3]Department of Pathology, Faculty of Medical Sciences, University of Sri Jayewardenepura

Objectives: The objective of this study was to investigate the relationship between dietary patterns and behavioral risk factors with *H. pylori* infection and disease severity in a dyspeptic patient population.

Methods: Data was collected from 148 dyspeptic patients undergoing endoscopic procedure at Colombo South Teaching Hospital. A pre-tested, interviewer-administered questionnaire was used to collect personal information, dietary habits, behavioral factors and clinical history. Clinical diagnosis during endoscopy and histopathological investigations were used to assess disease severity of patients and presence of *H. pylori*. Data was analyzed using Chi-square test. $P<0.05$ was considered to be statistically significant.

Results: Among the total dyspeptic patient population, the behavioral risk factors observed for dyspepsia were smoking (12.2%), betel chewing (27.6%) and alcohol consumption (16.9%). Dietary patterns observed among the patients were use of untreated drinking water (69.6%), high salt consumption (2.7%), consumption of yogurt (54.0%), coffee (41.9%) and consumption of black tea more than 4 times a week (75.0%). According to histopathological investigations, 15 patients were confirmed as *H. pylori* positive and of them, 12 had mild chronic gastritis while 3 had moderate chronic gastritis. According to clinical diagnosis, four (4/15) had gastric ulcers but none had duodenitis or duodenal ulcers. Of the *H. pylori* positive patients 40% (6/15) were smokers. Smoking showed a significant association with *H. pylori* infection, clinical diagnosis of duodenitis and duodenal ulcers but did not show a significant association with chronic gastritis.

Conclusions: Smoking has a significant association with *H. pylori* infection ($P<0.05$), duodenitis ($P<0.05$) and duodenal ulcer ($P<0.05$).

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Assessment of basal marker expression in breast cancers on a routine basis; is there any advantage?

Mudduwa LKB[1], Peiris HH[2], Abeysiriwardhana DS[1]

[1]*Department of Pathology,* [2]*Medical Laboratory Science Degree Programme, Faculty of Medicine, University of Ruhuna*

Objectives: To investigate the survival outcome of basal marker expression in a cohort of breast cancer patients who received chemotherapy

Methods: Breast cancer patients investigated in our laboratory for hormone receptors from 2006-2015 and who had chemotherapy were included. They were classified according to the expression of immunohistochemical surrogate markers for molecular classification (ER, PR, Her2, Ki67, CK5/6, EGFR), on tissue microarrays. Breast cancers expressing either CK5/6 or EGFR were considered basal marker positive. Triple-negative breast cancers (TNBC-negative for ER, PR and Her2) with expression of either CK5/6 or EGFR were classified as basal-like breast cancers. Follow-up details of patients were retrieved from clinic files. Kaplan-Meier model with log rank test was used for the analysis.

Results: Out of 728 patients, luminal-A, luminal-B (Her2-), luminal-B (Her2+), Her2-enriched and TNBCs comprised 25.0%, 11.8%, 6.2%, 15.5% and 41.4%, respectively. Basal marker expression was present in 20.1% of TNBCs (basal-like breast cancers) and 19.7% of non-TNBCs. Basal marker expression had no effect on the breast cancer specific survival (BCSS) or recurrence free survival (RFS) of TNBCs ($p=0.07,0.882$). BCSS and RFS were poor in basal marker expressing non-TNBC patients but statistical significance was observed only with the RFS ($p=0.006$).

Conclusions: Since TNBC without basal marker expression and basal-like breast cancers have no survival difference and have no targeted therapy but managed with chemotherapy, there is currently, no indication for routine identification of basal marker expression in TNBCs. However, the assessment of basal marker expression is important in predicting recurrences in chemotherapy indicated non-TNBC patients.