Oncology

Microbial profile of diabetic foot infections in Trinidad and Tobago

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Aims: To examine the microbiologic profile of diabetic foot infections in order to guide empiric antibiotic choices.
Methods: All patients with moderate–severe diabetic foot infections at a tertiary care facility were identified from July 2011 to June 2012. Culture samples were routinely collected before empiric antibiotics were commenced. Retrospective chart review was performed to extract the following data: demographics, clinical details, empiric antibiotic choice and microbiologic data. Descriptive analyses were performed using SPSS 12.0.
Results: There were 139 patients with a mean age of 56.9 ± 12.4 years. Mixed polymicrobial infections were present in 56.8% of cases. Of 221 organisms isolated, 64.7% were gram-negative aerobes, 32.1% were gram-positive aerobes and 3.2% were obligate anaerobes. Multi-drug resistant organisms were encountered in 25.9% of cases and included extended spectrum beta-lactamases (ESBL) producers (11.3%), methicillin-resistant *Staphylococcus aureus* [MRSA] (4.5%) and vancomycin-resistant *Enterococci* [VRE] (1.4%). Both ciprofloxacin and ceftazidime had good overall antimicrobial activity against gram-negative (68% and 62%, respectively) and gram-positive pathogens (69% and 48%, respectively). Obligate anaerobes were uncommonly isolated due to institutional constraints.
Conclusion: In this environment, both ciprofloxacin and ceftazidime provide good broad-spectrum antimicrobial activity against the commonly isolated pathogens. Either agent can be used as single agent empiric therapy in patients with moderate–severe diabetic infections in our setting. Although institutional limitations precluded isolation of anaerobes in most cases, there is sufficient evidence for anti-anaerobic agents to be recommended as a part of empiric therapy.

The changing pattern of diabetic foot amputations in Barbados

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Objective: Since the seminal publication by Hennis *et al* that established Barbados as the amputation capital of the world, there have been numerous initiatives to decrease the incidence of diabetes and diminish leg amputations by establishing better primary care programmes and improving public awareness. The industrialized world has experienced a 20 to 75% reduction in the incidence of major amputations during the past two decades. We hypothesized that the implementation of these global strategies would also significantly reduce the rate of amputations in Barbados.
Methods: A retrospective analysis was undertaken of patients that underwent a lower extremity amputation (LEA) between January 1 and December 31, 2009 at the Queen Elizabeth and Bay View Hospitals by review of the operating logs and under the guidance of the Ethics Board. The patients' records were reviewed to determine their demographics, aetiology of amputation and the presence or absence of co-morbidities such as diabetes, hypertension and renal failure. The major and minor leg amputations done in 2009 were then compared to those performed in 1999.
Results: A total of 226 LEA were performed in 2009 and 223 in 1999. Diabetes was present in 85% of the amputees in 2009 compared to only 75% in 1999. For the years 1999 and 2009, respectively, the nature of the amputations was: minor 123 *vs* 80, above knee 35 *vs* 67 and below knee 47 *vs* 79. Although the number of LEA was similar between 1999 and 2009, there was striking difference in distribution of the amputations with significantly more below knee and above knee amputations performed in 2009 compared to 1999.
Conclusion: Despite public health and care-giver diabetes initiatives, there has been no improvement in leg amputations in Barbados. The data suggest that there may be an

alarming worsening of the situation because although the numbers of LEA are similar over the decade, there are many more patients with diabetes. Furthermore, there was also a disturbing trend in 2009, with a lower number of minor amputations mirrored by a dramatic increase in proximal leg amputations. This may indicate that patients are presenting to their physicians at a later stage of their foot pathology. Further attempts at patient education and establishment of foot screening clinics may be required to reverse this trend.

Patterns of distribution and survival of gastric cancer in The Bahamas

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Objective: To determine the distribution of gastric cancer, demographic pattern and overall survival of patients from a single institution in The Bahamas over the past five years.
Method: A retrospective review of a prospectively held administrative database was performed. Patients diagnosed with gastric cancer from 2008−2012 formed the study population. Demographic data, date of diagnosis, pathology, surgical intervention and date of death were recorded.
Results: Fifty-eight patients were reviewed. There were 60% males and 40% females. The median age at diagnosis was 67 years. Adenocarcinoma not otherwise specified was the most common pathologic subtype identified. The median overall survival was 2.8 (95% CI 1.10, 4.57) months. There was a survival difference between males and females of males 3.6 (95% CI 1.53, 5.72) months and females 1.3 (95% CI 0.5, 2.0) months but this was not statistically significant ($p = 0.068$). Patients who underwent a surgical intervention had a median survival of 3.8 (95% CI 1.61, 5.97) months compared with those patients with no surgical intervention whose median survival was 1.8 (95% CI 0.86, 2.70) months ($p = 0.006$).
Conclusion: In this unselected group of gastric cancer patients, there was a uniformly poor overall median survival. Surgical intervention was the only significant factor found to improve overall survival.

Histologic findings of 1357 consecutive appendicectomies in the adult population in Trinidad and Tobago

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Objective: To determine the histologic findings, epidemiology, negative appendicectomy and faecolith rates in a sample of the adult population in Trinidad and Tobago.
Methods: The electronic medical records of 1357 histology samples were analysed for the period October 2003 to February 2012 from the Port-of-Spain General Hospital (POSGH), Sangre Grande Hospital (SGRH) and Tobago Regional Hospital (TRH). Data were collected on age, gender, year and hospital. Histologic findings on gross and microscopy were noted. Negative appendicectomy rates, faecolith rates and epidemiologic analyses were performed.
Results: There were 690 males (50.8%) and 667 females (49.2%). The majority of the appendicectomies, 74.2%, was done by POSGH, 12.9% by TRH and 12.7% by SGRH. The most common age group for appendicectomy was the 21−30 years followed by < 20 and the 31−40-year age groups. The average length of appendix was 7.69 cm (range 1−27 cm) and width 1.34 cm. The negative appendicectomy rate was 29% (POSGH = 24%, SGRH = 31% and TRH = 29%); females accounted for 55%. There were three carcinoids (0.002%) and 10 specimens with carcinomas (0.007%). One had appendicitis and most were in the elderly age group. The negative appendicectomy rate was highest in the 71−80 and 81−90-year age groups. There were 136 (10%) gangrenous appendices with an age range of 5−87 years and a mean of 34 and mode of 22. Males accounted for 65%. Faecolith rates were as follows: total faecolith rate was 186/1357 (13.7%), with appendicitis 117/956 (12.2%), normal or negative 62/349 (17.8%) and gangrenous or necrotic 19/136 (14%).
Conclusions: The negative appendicectomy rate remains on the high side with acceptable worldwide rates being 10−20%. The faecolith rates are remarkably low especially for gangrenous appendicitis. The peak age for appendicitis is in the 21−30-year age group.

Variants of hepatic arterial supply in a Caribbean population

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Introduction: Variations in the anatomy of hepatic vasculature are common. To the best of our knowledge, there have been no previous reports on variations in hepatic arterial anatomy in a Caribbean population. This information

is important to optimize interventional radiology and hepatobiliary surgical services in the region.

Methods: Two radiologists independently reviewed 309 computed tomography (CT) angiographic studies performed over two years between July 1, 2010 and June 30, 2012 at a regional hepatobiliary referral centre for the Northern Caribbean. The anatomic variations were described according to a conventional classification proposed by Michels *et al*.

Results: In this Caribbean population, the majority of patients had conventional Michels' Type 1 vascular anatomy (63.4%). However, we found a statistically significantly greater incidence of Michels' Type 2 variations (20.4%) than that reported in international literature and a lower incidence of Type 3 (5.2%), Type 6 (0.6%) and Type 9 (0) patterns than previously reported. We also encountered one case with variations not previously described in this classification.

Conclusion: Although 63.4% of persons in a Caribbean population have conventional vascular anatomy, the distribution of anatomic variants is quite different to that seen in North American and European centres. Interventional radiologists and hepatobiliary surgeons practising in the Caribbean must be cognizant of these differences in order to minimize morbidity and mortality during invasive procedures.