Letters to Editor

Hemolytic uremic syndrome and E. coli infection in cancerous patients: A topic to be discussed in oncology

Sir,

The E. coli outbreak in Europe is a big problem at present. The E. coli serotype O104:H4 is the cause of the present epidemic. One thousand infected cases are reported, with some deaths. The complication, namely hemolytic uremic syndrome (HUS), is the problem to be followed-up in the patients. Because the present epidemic is a community-acquired infection that is proved to increase the risk in cancer patients, it is interesting to discuss the nature of HUS in this group of patients. However, there is no present evidence that the HUS will be more serious in cancerous patients. Indeed, E. coli infection among the people with cancers is usually more severe than in the general population, but there is no specific study on HUS. Generally, HUS is well described in E. coli O157 infection, but it is also reported in the present O104 infection. Of interest, HUS is also described in relation with some treatments for cancerous patients. In interleukin treatment, induction of HUS is reported. In addition, HUS can also be seen in cases with occult cancer. However, this cannot lead to the conclusion that HUS will be more serious or more increased in prevalence in E. coli-infected cancerous patients.

Viroj Wiwanitkit
Wiwanitkit House, Bangkhae, Bangkok Thailand 10160; Visiting University Professor, Hainan Medical University, Hainan China.
E-mail: wviroj@yahoo.com

REFERENCES

Access this article online
Quick Response Code:
Website: www.ijmpo.org
DOI: 10.4103/0971-5851.103154

Breast cancer, diabetes mellitus and usefulness of immunonutrition

Sir,

I read the recent publication by Kaplan et al. on diabetes mellitus and prognosis in early-stage breast cancer women with a great interest.[1] Kaplan et al. suggested that “diabetes is an independent prognostic factor for breast cancer.”[1] Hence, the management of diabetes in patients with breast cancer seems to be a useful management in cancer therapy. Adding to the standard use of antidiabetic drug, the use of immunonutrition seems to be useful.[2] At least, using suppletions, especially for branch chain amino acid (BCA), can result in improvement of insulin resistance and further reduce tumorogenesis in animal models.[2] Here, the author would like to share his experience on using BCA in a patient with breast cancer. The change of insulin can be seen in this case. This case received BCA suppletion under control of a clinical nutritionist for 1 month. The pre-immunonutrition insulin level was 17.90 and the post-immunonutrition insulin level was 56.23. In addition, decreasing levels of CA15-3 could also be observed (the decreased amount is equal to 4.07). Based on these observations, it can be confirmed that management of diabetes in breast cancer will be useful. Use of BCA helps adjust insulin status and might further be helpful in the control of tumor progression. This case can be supporting evidence to the previous publications on this area.[1,2]
Antibiotic-resistant bacteria in surveillance cultures from hematopoietic stem cell transplant patients

Sir,

Increasing antibiotic resistance in bacteria is a cause for concern in the treatment of infections, particularly so in hematopoietic stem cell transplant (HSCT) patients who have a greater propensity toward acquiring infections because of the underlying immunosuppression. [1,2] The patients’ endogenous flora from the bowel, mouth and skin may be responsible for most of the serious bacterial infections that may occur and, although the debatable practice of routine prophylaxis is followed in many settings, the emerging issue of increasing antibiotic resistance can influence this. [3,4] Surveillance cultures from common organism-harboring sites can help identify resident multidrug-resistant endogenous bacteria.

We conducted a study to determine the prevalence of multidrug-resistance bacteria in surveillance cultures in our HSCT patients. Ninety-nine patients who were to undergo HSCT at our oncology center for the treatment of various malignant conditions during the period 2009–2010 were included. Surveillance cultures were performed from these patients when they were admitted. Swabs were collected from the anterior nares and axilla to look for the presence of methicillin-resistant Staphylococcus aureus (MRSA). Feces cultures were performed to screen for the presence of organisms like multidrug-resistant Gram negative bacilli including extended-spectrum beta lactamase-producing organisms (ESBL) and other carbapenem-resistant organisms. They were also screened for the presence of vancomycin-resistant Enterococci (VRE). Swabs were also collected from insertion and exit sites of Hickman’s catheters from these patients. All samples were processed according to the standard microbiology laboratory protocol and antibiotic selection and susceptibility interpretation was as per the Clinical Laboratory Standards Research Institute (CLSI) guidelines.

A total of 14 S. aureus isolates were recovered from the nasal and axillary swabs, of which seven (50%) were found to be methicillin resistant, with an overall MRSA incidence of 7%. Insertion and exit site swabs from Hickman catheters grew coagulase-negative Staphylococci in 4% and MRSA in 1% of the cases. In addition, Pseudomonas aeruginosa, Pseudomonas spp and Acinetobacter spp were recovered in 6% of the swabs. Of the 98 fecal cultures, a total of 68 grew Escherichia coli, of which 76.5% were resistant to the third-generation cephalosporins ceftazidime and cefotaxime; 36.8% were resistant to cefoperazone–sulbactam and 8.2% were resistant to imipenem and meropenem. Twenty fecal cultures grew Klebsiella pneumoniae, of which 60% were resistant to cefotaxime and ceftazidime; 35% were resistant to cefoperazone–sulbactam and 5% were resistant to the carbapenems tested. Fortye-five percent of the Klebsiella pneumoniae and 61.8% of the E. coli strains were ESBL producers. Fifteen strains of Pseudomonas aeruginosa/spp were isolated, which showed a higher resistance to piperacillin–tazobactam (86.6%), ceftazidime (80%) and cefoperazone–sulbactam (80%), and also to the carbapenems (73.3%). Twenty percent of the Enterococci were vancomycin resistant.

Thus, a high level of antibiotic resistance in the endogenous organisms of our HSCT patients was demonstrated by surveillance cultures, which is evident from isolations of MRSAs, VREs and ESBL-producing and carbapenem-resistant Gram negative bacteria. Patients who are colonized with multidrug-resistant bacteria may serve as a source of later infection in the same patient and also as infection risk for neighboring patients if not isolated.[5]