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Short Communication

Note on Cytomegalovirus Impacting on Gastrointestinal Tract

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DESCRIPTION

Cytomegalovirus, a double-stranded DNA virus, is a significant member of the Herpesviridae family. CMV infection can manifest as asymptomatic, constitutional symptoms or tissue-invasive diseases. The Gastro Intestinal (GI) tract is one of the most usually involved systems and related with 30% of tissue-invasive diseases among immune competent patients CMV GI disease is separate on the basis of upper and lower GI symptoms, macroscopic mucosal lesions, and CMV documented in tissue by histopathology, rapid culture, virus isolation, immunohistochemistry, or DNA hybridization techniques [1]. CMV infection can worsen the significances of fundamental GI diseases. For example, it intensifications the risk of colectomy, hospitalization, and even mortality in patients with Inflammatory Bowel Disease (IBD) patients with GI CMV disease, long-established by IHC staining, and aimed to investigate patient characteristics, clinical manifestations, endoscopic features, treatments, outcomes, prognostic factors of in-hospital mortality, and the differences in these factors detected at dissimilar sites [2].

Most number of cases of tissue-proven CMV GI diseases among similar studies in the literature, with all the registered cases prudently designated by positive IHC discoloration. Also, this is the first study to deliver detailed information on dissimilar segments of the alimentary tract, prognostic factors for in-hospital mortality, and the impact of dissimilar antiviral treatment courses. CMV diseases, irrespective of the end organs, are traditionally measured an infection primarily for immune compromised patients [3]. However, cohort studies of the GI tract in the past decades have composed a proportion of 25%–50% of immune competent hosts. Old age, dangerous illness, diabetes mellitus, end-stage renal disease, chronic kidney disease, and additional comorbidities can principal to immune deficiency and increase the risk of CMV diseases. Though, these features traditionally do not describe an immune compromised status. Clinical physicians should retain the diagnosis in mind when this high-risk group of patients current with relative symptoms. The diagnosis of CMV GI diseases is stimulating because of the diverse presentations, endoscopic findings, biopsy locations, and laboratory methods. Symptoms and laboratory parameters are not different from other etiologies of infectious diseases. Mutable ulcers are the most common endoscopic features of CMV infection; though, diagnosis based on endoscopic findings is difficult. Although serology tests provide a hint of CMV diseases, their results correlate incompetently to the attendance and severity of CMV tissue invasion; hence, histopathology remains the gold standard to settle the tissue invasion by CMV in an inflammatory background. However, the fraction of CMV viremia was relatively low. CMV IHC staining was widely used in clinically or pathologically suspicious cases. In this way, identify more mild GI CMV disease without viremia [4]. Likened to H and E staining, IHC staining provides higher sensitivity and specificity. Patients with CMV IHC staining validation; thus, the criterion is stricter and more rigorous than in preceding studies. Although quantitative polymerase chain reaction has diagnostic correctness similar to that of IHC staining in some studies, it has not been extensively applied in our institution he occurrence of CMV enteritis (8.4%) was the lowest, but it was related with the worst in-hospital survival rate. Difficult tissue sampling and a higher cost of enteroscopy may lead to missed and behind diagnosis. In addition, the highest percentage of patients consuming immune compromised status, critical illness, perforation, and surgery, also played important characters. Consequently, it would be aware of CMV enteritis in this group of high-risk patients with unexplained fever, abdominal pain, or GI bleeding. Seven negative prognostic factors of in-hospital mortality were recognized and could be classified into three aspects: host status of an old age, immune compromised status, hypoalbuminemia, manifestation of the GI bleeding, thrombocytopenia and Intervention of longer time-to-diagnosis duration, non-Combo therapy. In host status, old age, immune compromised status, and malnutrition (hypoalbuminemia) resulted in impaired immune function and then poor survival. In two prior studies, old age and malnutrition were well-known as negative prognostic factors for mortality as well. Since hypoalbuminemia designates malnourishment, poor immunity, and worse tissue healing, it is accountable for augmented mortality rates in numerous diseases, particularly in patients in the ICU setting. Thus, nutritional valuation and support are crucial for refining the survival rate of patients with GI CMV disease. View of the nonspecific clinical,

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laboratory, or endoscopic performances, lower awareness of CMV diseases in immune competent patients, and GI bleeding were compassion of H and E staining for CMV inclusion bodies, definite diagnosis of CMV disease might be delayed and may postpone further management. Once the diagnosis is confirmed, the dosage or prescription of immunosuppressive drugs and steroids could be abridged or stopped, respectively. Though the efficacy and advantage of antiviral agents for general CMV diseases in patients experiencing organ transplantation and with HIV infection have been lectured in reviews and guidelines, they are still controversial in other conditions. Most recommendations were made for immune compromised populations; while the evidence for immune competent populations was incomplete anti-viral therapies improved the in-hospital survival in both immune competent and compromised patients with 14 and 21 day therapeutic durations. Patients who conventional both IV and PO anti-viral agents inclined to have a more complete therapeutic course than others. Yet, the patients who received only IV form of anti-viral agents had a advanced mortality rate in both groups; they received only IV drugs without lengthy oral antiviral agents, which might be due to their critical disorder [5]. Moreover, side effects of antiviral agents, counting acute kidney injury and pancytopenia, might have assumed rise to poorer outcomes. This was the first study to associate the survival of patients with dissimilar immune statuses and treatment courses.

CONCLUSION

The patients had a continuous treatment course from IV to PO antiviral agents, and it was easier to record the therapeutic duration. On the other hand, intermittent medication due to intolerance, impaired renal function, and myelosuppression were frequently noted in exclusive IV or PO treatment groups, and we could not analyze the exact therapeutic duration in these patients. Among the seven independent prognostic factors, immune status and antiviral treatment significantly influenced survival. With good awareness and a complete treatment course, we might improve the outcomes of GI CMV diseases.

REFERENCES

1. Oku T, Maeda M, Waga E, Wada Y, Nagamachi Y, Fujita M, et al. Cytomegalovirus cholangitis and pancreatitis in an immunocompetent patient. J Gastroenterol. 2005;40(10):987-992.
2. Squizzato A, Ageno W, Cattaneo A, Brumana N. A case report and literature review of portal vein thrombosis associated with cytomegalovirus infection in immunocompetent patients. Clin Infect Dis. 2007;44(2):e13-16.
3. Kanda K, Kume K, Yoshikawa I, Watanabe T, Yamasaki T, Hirose A, et al. Cytomegalovirus esophagitis with massive upper-GI hemorrhage. Gastrointest Endosc. 2004;59(6):741-743.
4. Weile J, Streeck B, Muck J, Krebs G, Jakobus KH, Knabbe C, et al. Severe cytomegalovirus-associated esophagitis in an immunocompetent patient after short-term steroid therapy. J Clin Microbiol. 2009;47(9):3031-3033.
5. Moustafellos P, Hadjianastasiou V, Gray D. Postural epigastric pain as a sign of CMV gastritis: a case report. InTransplantation proceedings 2006;38(5):1357-1358.