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Perspective

Prevention Strategies for Acute Myelomonocytic Leukemia

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DESCRIPTION

Acute Myelomonocytic Leukaemia (AML) is a kind of acute myeloid leukaemia in which CFU-GM myeloblasts and monoblasts proliferate. AML is characterized by a fast increase in white blood cell count and the presence of more than 20% myeloblast in the bone marrow. Extramedullary Gastrointestinal Tract (GIT) involvement is a rare occurrence, as the majority of patients present with lymphoreticular organ involvement. AML is a dangerous condition, but it can be treated and typically cured with chemotherapy and a bone marrow/stem cell transplant. Its detection and diagnosis can be difficult due to the fact that these patients have atypical clinical signs. If the cause is not immediately apparent, it should be investigated in patients with acute or chronic leukaemia who arrive with unique GIT symptoms.

A wide range of clinically significant events known as Extramedullary (EM) manifestations of acute leukemia exists, and they frequently offer treatment challenges. Although the molecular pathways generating EM involvement are not fully understood, current immunophenotyping, cytogenetic, and molecular analyses are beginning to shed light. Certain chromosomal anomalies have been linked to a higher probability of EM involvement, possibly because to changes in tissue-homing pathways. Extramedullary Gastrointestinal Tract (GIT) involvement with leukaemia is uncommon, since most patients report with lymphoreticular organ and sanctuary site involvement, such as the brain, testes, and ovaries. Leukemic GIT involvement has been reported in places ranging from the mouth to the anus, in both solid and hollow organs. The use of MRI as soon as possible helped to discover underlying pathology, and effective tissue sample helped to confirm the diagnosis. Monocytic leukaemia is more likely to show with extramedullary disease, according to researchers. They claim that colon involvement can cause abdominal pain, bleeding, diarrhea, or blockage. Polypoid lesions, rectal vasculopathy, and colitis are some of the symptoms. The autopsy incidence of leukaemia gastrointestinal involvement ranges from 5.7 percent to 13 percent. The annual incidence rate is 1-2/100,000, with a median onset age of 65-70 years. The disease's specific etiological components are unknown, but they may be linked to ionizing radiation, occupational and environmental carcinogens or toxins. Routine blood testing reveals that 20%-30% of the individuals are asymptomatic with the condition. Weight loss has been noted in 20% of symptomatic patients, as well as excessive perspiration in 15% and abdominal fullness in 15%.

The stomach, ileum, and proximal colon were shown to be the most typically affected extramedullary locations. It can appear macroscopically as necrosis, bleeding, ulceration, or polypoid lesions. Histological confirmation of leukemic involvement of the GIT is required. In the previous work, of some scholars underline the necessity of tissue sampling, stating that biopsies should be done on all abnormal-appearing and sometimes normal-appearing tissues for histologic confirmation of suspected pathology. The difficulty with this patient was gaining an initial diagnosis because he had never been diagnosed with leukaemia before. The patient's disease progression revealed that GIT involvement with leukaemia might be linked to leukemic disease activity, as the patient's WBC increased in tandem with a worsening of these symptoms. These symptoms were alleviated by proper treatment of the underlying illness.

CONCLUSION

Although uncommon, leukemic infiltration of the colon should be examined anytime Acute Myelomonocytic Leukaemia (AML) is suspected on a blood film in a patient with GIT symptoms. When a patient presents with perianal pain and the diagnosis is ambiguous, a thorough examination and histological diagnosis via tissue collection should always be explored.

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