

publication.

Authors' Disclosures of Potential Conflicts of Interest

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Outcomes of patients with essential thrombocythemia and unnoticed thrombocytosis prior to diagnosis

TO THE EDITOR: Arterial and venous thromboses are major clinical events in patients with essential thrombocythemia (ET) [1, 2]. ET is often detected in individuals with newly diagnosed cerebrovascular or cardiovascular thrombosis [3, 4]. While many patients experience thrombosis prior to the diagnosis of ET [5], some patients have unnoticed thrombocytosis prior to the diagnosis of ET, suggesting a delay in the diagnosis of this disorder [6]. The possible effects of delayed diagnosis on the clinical course of ET have not been well addressed. We reviewed the status of delayed diagnosis of ET and its clinical outcomes. The medical records of patients with ET who visited Chungnam National University Hospital from January 1993 to June 2019, in whom a complete blood count (CBC) was performed at least once prior to the diagnosis of ET, were reviewed retrospectively. CBC was performed prior to the diagnosis of ET in 32 of 179 patients. Of these 32 patients, 26 had thrombocytosis (platelet count $\geq 450.0 \times 10^9/L$), which was neither noticed nor managed. Of these 26 patients, thrombocytosis was overlooked by physicians in 23 (88.5%) cases, ignored by the patient in 2 (7.7%) cases, and not completely evaluated due to pregnancy in 1 (3.8%) case. At the time of initial detection of thrombocytosis, the probability of ET was high in 24 (92.3%) patients because there were no reasons for reactive thrombocytosis. Diagnostic triggers of ET included examination of another health problem in 11 (42.3%) patients, a routine health check-up in 9 (34.6%) patients, and thrombotic events in 6 (23.1%) patients. The median time from initial detection of thrombocytosis to the diagnosis of ET was 2.3 (range, 0.6–12.8) years. During the delay, white blood cell counts and hemoglobin levels did not change (from $10,286 \pm 4,744 \times 10^9/L$ to $12,089 \pm 4,717 \times 10^9/L$, $P=1.100$ and from 13.7 ± 1.6 g/dL to 12.5 ± 2.9 g/dL, $P=0.065$, respectively). However, platelet counts increased significantly (from $657.0 \pm 193.5 \times 10^9/L$ to $914.0 \pm 295.7 \times 10^9/L$, $P=0.001$),

and six patients developed thrombotic events (myocardial infarction and thromboangiitis obliterans, both N=1; cerebral infarction and transient ischemic attack, both N=2). These results showed that thrombocytosis is often overlooked or ignored before the diagnosis of ET in clinical practice. In the present study, data on CBC were available in a small subpopulation of patients. Considering the extensive health check-up and high accessibility to medical services in Korea, more patients might have had thrombocytosis that could have been overlooked for a certain period. Presently, cardiovascular and cerebrovascular thromboses are major causes of death in the general population [7, 8]. It is clear that early detection of ET and appropriate management would markedly reduce the thrombotic risks posed by this disorder. Accordingly, hematologists need to communicate and cooperate with cardiologists and neurologists. In addition, hematologists should communicate with and educate physicians from other fields and health practitioners on this issue.

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