ACADÉMIE NATIONALE DE MÉDECINE

Medical and societal implications of the considerable progress made in the management of chronic leukemia [1]

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The treatment of hematological malignancies has made exceptional progress over the last 20 years, thanks to an in-depth knowledge of the pathophysiology of these diseases. Myeloproliferative syndromes (Vaquez disease, chronic myeloid leukemia (CML) and lymphoproliferative syndromes (in particular chronic lymphocytic leukemia (CLL)) are often recognized following a hemogram, a simple test that is an outpatient care without hospitalization. Two of these hemopathies are emblematic of a paradigm shift in hematology.

CLL is a monoclonal lymphoid proliferation, whose assessment includes, in addition to blood phenotyping, cytogenetic and molecular examinations allowing targeted treatments to be proposed in forms with a high tumor mass, such as a Bruton's tyrosine kinase inhibitor, ibrutinib, the treatment selected in the event of a TP53 mutation, or of a 17p deletion in the karyotype. Venetoclax, a potent selective inhibitor of the anti-apoptotic protein BCL-2, is also a drug of interest in CLL. In patients over 65 years, the long-term results of the ibrutinib/venetoclax combination show a significant reduction in the risk of disease progression or death and a greatly improved survival rate compared to what it was with the treatment used before (chloraminophen).

Monitoring is done with blood tests, but concerns also the risk of infection, as these patients have a high susceptibility to infectious complications. As in other hemopathies, in the event of resistance, a new assessment in a specialized consultation makes it possible to detect cytogenetic anomalies or mutations in the immunoglobulin heavy chain genes and to initiate targeted therapies. If oral treatment is well tolerated and efficient, regular referral to a specialist is not systematic (1).

CML is a myeloproliferative syndrome which, in most cases, is treated with outpatient oral tyrosine kinase inhibitors, especially imatinib. The entire assessment is done in outpatient consultation. Monitoring is based on simple blood tests but to which molecular biology tests must be added, in particular the polymerase chain reaction amplification of the leukemic transcript, initially monthly then quarterly. If a profound improvement in the results of these tests is obtained, often after 2 or 3 years, they can be spaced out every 6 months. This hemopathy has become a chronic disease but if resistance to the first-line treatment with imatinib occurs, a specialist consultation is also necessary. The mutational profile will then be studied with a myelogram to carry out a karyotype in search of additional cytogenetic anomalies. The use of second or even third generation tyrosine kinase inhibitors generally allows an improvement in the results of molecular tests, which are sometimes marked. Recent studies have confirmed a clear improvement in the survival of these patients with a 17-year survival of 82% (2). In some cases, it may even be proposed to stop the treatment (3).

Thus, these malignant hemopathies, whose prevalence is increasing, have seen their prognosis considerably improved, with long life prospects and a satisfactory quality of life. The resumption of activity may be accompanied by a desire to invest, especially if the remission is prolonged and that the specialist begins to talk about recovery. A loan may then become necessary. The French legal provision of the right to be forgotten makes this easier.
These targeted therapies must be particularly well known to health professionals in charge of such a population of chronic patients, as there are many drug interactions and some combinations (anti-coagulants) can be a source of serious complications. While the general practitioner, in conjunction with the specialist, continues to play a major role in monitoring these patients, the support of advanced practice nurses (APNs) has recently been added judiciously to the patient monitoring system. APNs will visit patients regularly, take blood samples at home for monitoring, and the treatment can then be adapted on the advice of the specialist without these patients having to go back to hospital.

Faced with these major developments in the management of chronic leukemia, the French National Academy of Medicine makes the following recommendations:

- Faced with a tumor syndrome (adenopathy, splenomegaly) and suggestive general signs (pallor, weight loss), prescribe a complete blood count for an early diagnosis, and an early management of the hemopathy;

- The prescriber must be familiar with the pharmacology of targeted therapies to ensure a careful monitoring of side effects and avoid prescriptions that are sources of sometimes fatal drug interactions;

- Ensure a coordinated management of these patients involving the hospital specialist, the general practitioner, the advanced practice nurse and the pharmacist, with emphasis on monitoring the efficacy and tolerance of the treatment, and its possible adaptation;

- Encourage a return to work when, after the initial phases of treatment, the hemopathy is in good remission.

References

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[1] Press release from the Academy's Rapid Communication Platform.