Compliance and adherence of patients in the treatment of acute lymphoblastic leukemia

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The terms ‘Compliance’ and ‘Adherence’ are often used synonymously and interchangeably, yet the constructs are different.[1] Compliance or, less coercively, concordance is the fulfillment by a patient of a caregiver's prescribed course of treatment. Adherence is the process in which a person follows rules, guidelines and standards.

Compliance has been described as the extent to which a patient's behavior coincides with medical advice.[2] The most extreme examples of non-compliance are refusal and abandonment of therapy; the latter a well-recognized and prevalent problem in pediatric oncology in low income countries.[3] Indeed, in some circumstances it has been the commonest cause of treatment failure.[4]

Acute lymphoblastic leukemia (ALL) is the only form of malignant disease for which a prolonged course of maintenance (continuation) therapy – often for a year or more – is of demonstrable benefit. While this typically involves lower intensity treatment than in antecedent phases of therapy, dose escalation to pre-determined levels limited by toxicity is the norm.[5] Failure to deliver such doses has been known for more than 40 years to compromise the prospects for survival.[6]

So the study reported by Dr. Oliveira and colleagues is both important and instructive.[7] They describe the failure to deliver protocol-determined doses of 6-mercaptopurine (a routine component of maintenance therapy) without adequate reason in more than 1/3 of children and adolescents with ALL. Remarkably the responsibility for the "interruptions" in treatment was almost equally divided between patients/families and physicians. While the likelihood of incomplete compliance by the former increases with the duration of therapy,[8] there are no published data to suggest a similar phenomenon with respect to poor adherence

by physicians. Yet personal experience points to a common oversight; the failure to escalate doses to pre-set targets, within the bounds of tolerance.

Incomplete compliance with oral anti-neoplastic therapy by patients/families is common and multifactorial, and reported truthfully and accurately by them.[9] Non-compliance is especially challenging in adolescents.[9] Improvement can be achieved simply, effectively and inexpensively by behavioral strategies such as self-monitoring, contracting and reinforcement programs.[10] It is no less important to minimize poor adherence to protocols by physicians. The putative survival advantage enjoyed by patients on clinical trials has been attributed, in large measure, to good adherence. Improving physician performance in this domain can be accomplished by continuous monitoring, an exercise to which nurses and clinical pharmacists can make considerable contributions, and by formal audits. Such improvements have been shown to increase survival.[11]

Dr. Oliveira and colleagues are to be complimented on drawing attention to an area of clinical practice all-too-often overlooked. They are encouraged to remedy the deficiencies that they have uncovered and report on the anticipated benefits at a later date.

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