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Acid Esterase (ANAE) in Acute Lymphoblastic Leukemia (ALL)

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In this journal, Veerman et al. [6] claimed that the vast majority of T-ALL cells proved to be ANAE negative (30/31) and acid phosphatase positive (29/31). As ANAE positivity in ALL largely depends on the fixation used [1,5] this point will be emphasized in the following. Veerman et al. [6] used a fixation and incubation as indicated by Ranki [4], i.e. air-dried cytopspin preparations were incubated in a medium consisting of 40 ml of 0.067 M phosphate buffer, 0.24 ml of hexazotized pararosaniline, and 10 mg of α -naphthyl acetate in 0.4 ml of acetone; incubation was performed at pH 6.1, for 3 h, at room temperature. When this procedure was modified as follows [1, 3], we described very different results in ALL [2]. In our experiments air-dried blood films or imprints were fixed in formalin vapor for 5 min. Incubation was performed for 3 h at 37 °C and pH 5.8 in a freshly prepared medium identical to that used by Ranki [4], respectively by Veerman et al. [6]. After incubation, the slides were rinsed for 1.2 min and counterstained with Weigert's ferrous hematoxylin. Using the above method which is different, especially with regard to fixation, results of ANAE cytochemistry in T-ALL were similar to those obtained with acid phosphatase staining: from 31 cases of T-ALL (according to membrane marker tests) 28 exhibited a distinctly granular and paranuclear ANAE positivity of a considerable portion of their leukemic blasts [2].

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This letter has been presented to Dr. Veerman who offers the following reply: