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Leukoagglutination, *Mycoplasma pneumoniae* Pneumonia, and EDTA Acid Blood

Lökosit Agregasyonu, *Mycoplasma pneumoniae* Pnömonisi ve EDTA'lı Kan

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To the Editor,

We read the report "Peculiar Cold-Induced Leukoagglutination in *Mycoplasma pneumoniae* Pneumonia" with great interest [1]. Kubota et al. [1] reported an interesting patient with *Mycoplasma pneumoniae* pneumonia who had leukoagglutination. They noted that this is a rare condition. We agree that the patient had leukoagglutination and *Mycoplasma pneumoniae* pneumonia. Nevertheless, the leukoagglutination in this case may or may not have been due to *Mycoplasma pneumoniae* pneumonia. A common problem that might be forgotten is EDTA-induced leukoagglutination [2]. This basic laboratory interference phenomenon cannot be ruled out in the present case. As noted by Grob and Angelillo-Scherrer, EDTA-dependent leukoagglutination can be seen in healthy individuals and this is not related to *Mycoplasma pneumoniae* pneumonia [3].

Keywords: EDTA, Leukoagglutination, Mycoplasma

Anahtar Sözcükler: EDTA, Lökosit agregasyonu, Mikoplazma

Conflict of Interest: The authors of this paper have no conflicts of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

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Reply to the Authors:

To the Editor,

We thank Joob and Wiwanitkit [1] for their helpful comments regarding the cause of leukoagglutination in our case [2]. Although the underlying mechanism of in vitro leukoagglutination has not been fully clarified, leukoagglutination can be classified into two groups: (1) EDTA-dependent leukoagglutination, and (2) EDTA-independent cold-induced leukoagglutination [3,4]. As pointed out by Joob and Wiwanitkit [1], both EDTA and cold agglutinin (CA) may have been implicated in our case, although high-titer CA was detected, and numerous erythrocyte agglutinations were observed in the peripheral blood smear.

Screening for CA has shown that low-titer CAs may be found in the serum of healthy adults [5]; this may suggest the possibility that naturally occurring CA is somewhat involved in EDTA-dependent leukoagglutination in healthy subjects. Nonetheless, when leukoagglutination occurs in an EDTA-anticoagulated blood sample, additional examination of the sample using other anticoagulants could be recommended to confirm the relationship between leukoagglutination and EDTA.

Best Regards
Yasushi Kubota, Shinya Kimura

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