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A Presumed Case of Dextran-induced Anaphylactoid Reaction

To the Editor:—The article by Bernstein *et al.*[1] presents a severe reaction to dextran. However, the authors do not provide sufficient evidence that this reaction was a case of dextran-induced anaphylactoid reaction (DIAR). By virture of his previous exposure to dextran, the patient described certainly was at risk of developing dextran reactive antibodies, and sustaining an allergic reaction to dextran on subsequent exposure. The temporal relationship between the dextran 40 infusion and the precipitous fall in arterial blood pressure was typical of DIAR.[2] Clinically, what mitigates against DIAR, in this instance, is the reported absence of skin manifestations (flush, erythema, urticaria) and bronchospasm.

Ljungstrom *et al.*[3] stated that the diagnosis of DIAR was dependent on circulatory symptoms being preceded by, or occurring in combination with, cutaneous symptoms or bronchospasm. Furthermore, for diagnosis of reactions of grade III and IV, dextran reactive antibody titers should be elevated in serum drawn before the reaction (obtainable from blood drawn preoperatively for cross-matching), and considerably reduced after the reaction.[4] Bernstein *et al.* did not do this. Examining this report by these criteria, a factor other than dextran would be judged to be the probable causative agent, and the reaction to dextran, in this instance, would be designated as non-likely.[3] Lacking the ability to measure dextran reactive antibody titers, the simple presence of an allergic reaction may be elicited through an abrupt rise in serial plasma histamine levels, and a sudden fall in serial plasma complement proteins C_3 and C_4 levels.[5] Unfortunately, these latter tests fail to elucidate the agent responsible for the reaction.

Large series of patients have shown that it is possible to confirm DIAR with a reasonable degree of certainty on the basis of specific clinical observations combined with laboratory investigations.[2,3] Bernstein *et al.* have made a presumptive diagnosis of a dextran-induced anaphylactoid reaction, without either of these.

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In Reply:—We have, unfortunately, witnessed numerous episodes of DIAR. Severe hypotension without cutaneous manifestations or bronchospasm was common. While one might anticipate these to occur, Lungstrom's