eral venepuncture, and thus a true bacteriaemia was present rather than just colonisation of the line. Subsequent culture, however, of the subclavian line showed no growth. The most probable cause of the seven day fever was the necrotic donor kidney which, unfortunately, was not sent for culture. This hypothesis is supported by the fact that the subclavian line was still in situ following the fall in temperature.

CDC D2 coryneforms, like the "JK" diphtheroids, have multiple resistance to antibiotics. This organism was found to be highly resistant to cefotaxime, (MIC to cefotaxime > 32 mg/l). The bacteriaemia, therefore, seemed to have self limiting.

This organism is considered to be a nitrate negative variant of Corynebacterium pseudodiphthericum. Using the identification scheme of Hollis and Weaver\(^3\) Corynebacterium CDC D2 shows the following reactions: Gram positive rod; catalase positive; motility negative; nitrate negative; urea positive; no oxidation or fermentation of glucose; citrate negative; and mannitol negative.

The colonies are small (less than 1 mm at 24 hours) and non-pigmented. Blood or serum containing media is required for growth. By disc testing, the organism showed resistance to cefuroxime, cefotaxime, and trimethoprim, but was sensitive to gentamicin, netilmicin, vancomycin, and erythromycin. As far as we know this is the first case of bacteriaemia with Corynebacterium CDC D2. We have subsequently isolated Corynebacterium CDC D2 from another patient who had also had a renal transplant; the organism was found colonising both an intravenous cannula and cannula skin entry site.

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Proposed relation between expression of interleukin-2 and transferrin receptors in B lymphocyte chronic lymphocytic leukaemia

We report the preliminary findings of a study of two receptors on cells from patients with B lymphocyte chronic lymphocytic leukaemia (B-CLL). The two receptors, interleukin-2 receptor (IL-2R) and the transferrin receptor (TTR), were identified using monoclonal antibodies anti-TAC (courtesy of Dr T Waldman, USA) and B3/25 (courtesy of Dr I Trowbridge, USA), respectively.

Blood films from 49 patients with B-CLL were examined, and membrane phenotypes were determined using a panel of monoclonal antibodies, as previously reported.\(^1\) Assessed thus, the B-CLL's appeared as a homogenous group. When examined morphologically, however, it was apparent that the group was more heterogeneous than was suggested by the conventional membrane marker results. When IL-2R and TTR were determined the B-CLL’s were also found to exhibit heterogeneity in the expression of these two receptors, (table), and it seemed that the morphological appearances correlated with the expression of the IL-2R and TTR. "Typical" B-CLL’s were negative for both receptors, but the cases where lymphocytes were evident showed expression of IL-2R and TTR, or just TTR alone.

Previously reported studies of the TTR have suggested that the appearance of this receptor is a prerequisite for cells to proceed from G0 phase to S phase in a cells DNA cycle.\(^2\) Neckers and Cossman reported that the IL-2R needed to be expressed on phytohaemagglutinin in assay stimulated lymphocytes before the TTR could be expressed.\(^3\) Work by Bettens et al\(^4\) on lymphocytes stimulated by phytohaemagglutinin in assay showed that interleukin-2 is required to convert G0 (middle RNA content) into G1\(m\) (high RNA content).

There could, therefore, be an evolutionary link between the two receptors. This may correlate with the cycle when the cells in G0 phase may fail to express the receptors, IL-2R is expressed in early G1 phase, TTR and IL-2R in intermediate G1 phase, and the sole expression of the TTR occurs in late G1 phase. A study of the TTR expression, prognosis, and histological class in non-Hodgkin’s lymphoma indicated that positive expression of the receptor could, in certain cases, be of prognostic value.\(^5\)

We suggest that the expression of IL-2R and TTR may be of value in predicting which B-CLL’s will transform into a more aggressive prolymphocytoid phase, and we are presently engaged in further investigation into this area.

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References


Table IL-2R and TfR distribution in B-CLL

<table>
<thead>
<tr>
<th>Total No of cases</th>
<th>Cases negative for IL-2R and TfR</th>
<th>Cases expressing IL-2R alone</th>
<th>Cases expressing IL-2R and TfR</th>
<th>Cases expressing TfR alone</th>
</tr>
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<tr>
<td>49</td>
<td>22</td>
<td>9</td>
<td>13</td>
<td>5</td>
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All fluorescence was exhibited in weak density when examined using indirect immunofluorescence techniques.

Letters to the Editor

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Proposed relation between expression of interleukin-2 and transferrin receptors in B lymphocyte chronic lymphocytic leukaemia.

D Barnett, G A Wilson, A C Lawrence and G A Buckley

J Clin Pathol 1987 40: 814
doi: 10.1136/jcp.40.7.814

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