Letter to the Editor

Nephron 1984;37:68

Immunosuppressive Therapy and Breast-Feeding after Renal Transplantation

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<td>S.S.</td>
<td>Stylianos S. Vasiliou</td>
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<td>A.N.</td>
<td>Anastasios N. Lazarides</td>
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Pregnancy in the renal transplant population now seems to be relatively safe when renal function is adequate before conception and when maintenance immunosuppressive therapy is instituted [1]. All patients receiving renal allografts at our department are given immunosuppressive agents, azathioprine and methylprednisolone. Although breast-feeding in these patients has been discouraged because of the potential risk to the infant from the immunosuppressive drugs, 2 of them chose to breast-feed their infants.

It is widely accepted that human milk has the potential to afford a baby significant protection against a range of infections, particularly of the respiratory and gastrointestinal tracts [2]. The precise way in which breast milk achieves its antibacterial and antiviral properties is not well known, but it does contain a wide range of protective factors, including immunoglobulins, complement components and different types of cells with phagocytic capacities [3]. Of the immunoglobulins, secretory IgA is the most important. In a recent publication [4], the IgA level in the breast milk of a patient taking immunosuppressive drugs was found to be similar to that in the controls. Also, there is no evidence so far that immunosuppression can occur from the small amount of azathioprine (6-mercaptopurine) or methylprednisolone found in the breast milk of transplanted mothers who are under the lower maintenance dose of immunosuppressive drugs during gestation and lactation. In our 2 cases, immunosuppressive drugs as well as breast milk IgA levels were not determined, but the infants described herein (table I) have normal blood cell counts, no increase in infections and above-average growth rate.

References


Table I. Report of cases

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<thead>
<tr>
<th>Patient 1</th>
<th>Patient 2</th>
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<tbody>
<tr>
<td>Past history</td>
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<tr>
<td>Primary disease</td>
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<tr>
<td>chronic reflux</td>
<td>chronic reflux</td>
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<tr>
<td>glomerulo- nephropathy</td>
<td>glomerulo- nephropathy</td>
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<td>nephritis</td>
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Donor source | mother | mother
Age at time of transplantation, years 21 26
Interval from transplantation to conception, months 27 50
Prenatal history
Age at time of pregnancy, years 23 30
Dose of methylprednisolone, mg/day 8 8
Dose of azathioprine, mg/day 75 100
Blood pressure during pregnancy, mmHg 110–130 125–150
70–80 80–100
Outcome of pregnancy
Duration of gestation, weeks 39 38
Delivery normal cesarean section
Data of infant
Birth weight, kg 3.2 2.8
Sex male female
Complications none none
Renal function
Maximal serum creatinine, mg/l00 ml
Before pregnancy 1.0 1.4
During pregnancy 1.2 1.8
After pregnancy 1.0 1.3
Creatinine clearance at the end of gestation, ml/min 80 65