Background: Black race affords some protection from retinopathy of prematurity (ROP), but more ROP was previously found in another darkly pigmented race, the Alaskan natives.

Design: From fall 1989 through summer 2003, all Alaskan infants with a birth weight of 1500 g or less were examined, documenting mother’s stated race, prenatal care, and neonatal intensive care unit course.

Results: Retinopathy of prematurity was classified as to predefined threshold for peripheral ablative treatment (region of avascular retina and fibrovascular ridge and vessel tortuosity) in 873 infants. Threshold ROP was more prevalent in Alaskan natives (24.9%) and Asians (15.9%) (10% overall), with no significant difference between Alaskan natives and Asians (P = .24). Alaskan native males had more threshold ROP (69%) compared with non-Alaskan native males (51%). Compared with threshold nonnatives, Alaskan native threshold infants had greater birth weights (829±222 vs 704±186 g), required less time on ventilation (46±22 vs 70±75 days), and progressed to treatment at a younger age (35.5±2.2 vs 36.2±2.6 weeks’ gestational age) (data are given as mean±SD).

Conclusions: In this limited study, we find increased risk of threshold ROP in 2 northern Pacific races. Threshold Alaskan natives had similar or better prenatal and neonatal intensive care unit variables than did threshold nonnatives; however, Alaskan native males were still at a greater risk.


Retinopathy of Prematurity (ROP), despite improvements in neonatal intensive care unit (NICU) care and survival, remains a major cause of childhood blindness. Race is a risk factor for threshold ROP. The Multicenter Trial of Cryotherapy for Retinopathy of Prematurity found a threshold rate of 7.5% for white and 3.2% for black persons. Latin American persons may have more ROP than white persons. Although black race affords some protection from threshold ROP, a higher preponderance of ROP in another darkly pigmented race, the Alaskan natives, was previously noted. We sought to determine if this trend persisted and was predictive of ROP severity in Alaska.

METHODS

From September 1989 through July 2003, all infants with birth weights of less than 1500 g, receiving care at Alaska’s levels 3 and 2 NICUs in Anchorage, underwent serial ophthalmic and retinal examinations to diagnose and/or treat ROP by one of us (R.W.A.). This observational study received approval from the Institutional Review Board of Providence Hospital, Anchorage. We prospectively recorded birth date, mother’s stated race, birth weight, gestational age, severity of intraventricular hemorrhage, date of extubation, prenatal care, birth location, maternal substance use, and details related to either cryotherapy or diode laser therapy. The threshold for ROP treatment was defined by the Multicenter Trial of Cryotherapy for Retinopathy of Prematurity; the region of immature avascular retina (zone), the degree of fibrovascular ridge (stage), and the level of retinal vascular tortuosity from abnormal arteriovenous shunting (Plus disease) were carefully documented. These observations preceded recent 2003 NICU adaptation of decreased early oxygen saturation and the adoption of modified ROP threshold criteria.

The variables were compared using statistical software (JMP 5.01a; SAS Institute Inc, Cary, NC) using the χ² test, an unpaired t test, and an analysis of variance.

RESULTS

Retinopathy of prematurity was classified as to the presence or absence of thresh-
Race continues to convey differential risk for progression to threshold ROP. We confirmed a protective effect for blacks and an exacerbating effect for Alaskan natives. Alaskan natives who progressed to threshold ROP had similar or better prenatal and NICU variables than their nonnative counterparts, but Alaskan native males fared worse. Because of a concerted maternal transport effort, most preterm infants for whom race was not easily discerned because of mixed parents and lack of both parents available for reporting. In our Asian infants may be related to ancestry across the Bering Land Bridge. As a follow-up to an initial report, we were not able to ascribe a dietary influence related to ω-3 fatty acids and fish. In animal models of ROP, there is a differential propensity for ROP even in different strains and different retinal pigment levels of rats. We hope that a better understanding of risk factors and genetic markers might provide an answer that would be of benefit for infants at risk for ROP worldwide.

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**Correction**

Errors in Tables. In the article “Associations of Body Mass Index and Perceived Weight With Suicide Ideation and Suicide Attempts Among US High School Students” by Eaton et al published in the June issue of the ARCHIVES (2005;159:513-519), 2 rows of data in the “Perceived Weight” section of Table 1 should have been deleted. The corrected section of Table 1 is given in the tabulation below. Also, the subheadings for the “BMI Category” section in Tables 1, 2, 4, and 5 should have read as follows: Underweight, At Risk for Underweight, Normal Weight, At Risk for Overweight, and Overweight.

<table>
<thead>
<tr>
<th>Perceived Weight</th>
<th>Very Underweight</th>
<th>Slightly Underweight</th>
<th>About Right</th>
<th>Slightly Overweight</th>
<th>Very Overweight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2.6</td>
<td>1.00 (Referent)</td>
<td>16.0</td>
<td>1.00 (Referent)</td>
<td>58.1</td>
</tr>
<tr>
<td>Female</td>
<td>1.7</td>
<td>0.66 (0.51-0.87)</td>
<td>10.7</td>
<td>0.63 (0.54-0.73)</td>
<td>52.6</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1.8</td>
<td>1.00 (Referent)</td>
<td>13.8</td>
<td>1.00 (Referent)</td>
<td>55.3</td>
</tr>
<tr>
<td>Black</td>
<td>3.2</td>
<td>1.88 (1.16-3.05)</td>
<td>11.1</td>
<td>0.78 (0.66-0.93)</td>
<td>60.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.4</td>
<td>1.40 (1.05-1.85)</td>
<td>11.3</td>
<td>0.80 (0.67-0.96)</td>
<td>51.4</td>
</tr>
</tbody>
</table>