Oculocerebucutaneous syndrome

We read with interest the recent paper by Al-Gazali et al. on oculocerebucutaneous syndrome. We would like to report another Dutch patient, add four patients previously reported in ophthalmological publications1-5 and two recently described cases6,7 and present a follow up of the patient described by Wilson et al.8

The Dutch patient was the third born male child of healthy, non-consanguineous parents. At birth, skin tags were noted around the left orbit and on the neck. He also had a defect of the left nasal ala, skin hypoplasia above the left ear, and punch-like skin defects around the left corner of the mouth (figure). No anomalies were found other than on the left side of the face and neck. The left eye, which seemed microphthalmic at birth, gradually started to protrude and an orbital cyst was suspected, which was surgically removed. At operation no connection between the brain and the cyst was found, although the cyst had protruded more when the boy was crying. Histopathology of the cyst showed a neuroepithelial hamartomatous structure. Examination of the right eye did not show any anomalies. Repeated CT scans and MRI of the brain showed agenesis of the corpus callosum and mild constant dilatation of the left ventricle, but no intracranial cysts. Radiology of the thorax and vertebral column gave normal results. Chromosomal studies in lymphocytes and fibroblasts from skin from the left side of the head indicated a normal male karyotype. At present, the patient is 14 months old, has a developmental age of about 12 months, and has not had any epileptic seizures.

The features of this patient and six other reported cases2-7 are consistent with the data presented by Al-Gazali et al.8 in the table. In addition we have knowledge of two other unpublished patients (R. G. Lin, 1989, personal communication). It is possible that many reported examples of orbital cysts9 are in fact incomplete forms of the oculocerebucutaneous syndrome. The relationship with encephalocraeniocutaneous syndrome remains uncertain.10,11 Follow up of the patient reported by Wilson et al.8 showed that the girl, now aged 4½ years, has only mild psychomotor developmental delay and is attending a normal school. Her main problems are a disturbed equilibrium and difficulty in co-

---

**Main features of oculocerebucutaneous syndrome.**

<table>
<thead>
<tr>
<th>Features</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Present case</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental retardation</td>
<td>7/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(−)</td>
<td>9/12</td>
</tr>
<tr>
<td>Convolusions</td>
<td>7/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8/12</td>
</tr>
<tr>
<td>Generalised asymmetry</td>
<td>3/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3/13</td>
</tr>
<tr>
<td>Cleft lip/palate</td>
<td>3/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3/13</td>
</tr>
<tr>
<td>Orbital cyst</td>
<td>8/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14/16</td>
</tr>
<tr>
<td>Microphthalmia</td>
<td>5/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10/15</td>
</tr>
<tr>
<td>Eyelid coloboma</td>
<td>4/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6/16</td>
</tr>
<tr>
<td>Skin tags</td>
<td>8/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14/16</td>
</tr>
<tr>
<td>Skin hypoplasia</td>
<td>9/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14/16</td>
</tr>
<tr>
<td>Punch-like defect</td>
<td>7/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13/16</td>
</tr>
<tr>
<td>Skull defects</td>
<td>5/8+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9/14</td>
</tr>
<tr>
<td>Rib dysplasia</td>
<td>4/9+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4/13</td>
</tr>
<tr>
<td>Intracranial cysts</td>
<td>6/8+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8/12</td>
</tr>
<tr>
<td>Agenesis of corpus</td>
<td>4/8+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5/11</td>
</tr>
<tr>
<td>callosum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

ordinating both sides of her body, which might be related to the agenesis of the corpus callosum. An infant stimulation programme has been of benefit to her.

Our patient is the fourth of full Dutch extraction, while the mother of the patient reported by Wilson et al. was of Dutch extraction too. This prompted us to perform genealogical studies in all these patients. No consanguinity could be shown in five generations. We favour a somatic autosomal dominant mutation as the most probable cause of the oculo-cerebrocutaneous syndrome.12 13

We thank the parents of the patient described here and the parents of the patient described by Wilson et al. for their cooperation, Dr P L Giorgi for additional information on his patient, and F A M Hennekam (Utrecht), R L E Hoppe (Nijmegen), L M de Jager and E C van’t Woud (Amsterdam) for the genealogical studies.

LIESBETH M BLEEKER-WAGEMAKERS
Department of Ophthalmo-genetics, The Netherlands Ophthalmic Research Institute, Amsterdam, The Netherlands.

BEN C J HAMEL
Department of Clinical Genetics, University of Nijmegen, The Netherlands.

RAOUL C M HENNEKAM
Clinical Genetics Centre, Utrecht, The Netherlands.

FRITS A BEEMER
Clinical Genetics Centre and Wilhelmina Children’s Hospital, Utrecht, The Netherlands.

HANNA W E OORTHUYS
Department of Paediatrics, Academic Medical Centre, (AMC), Amsterdam, The Netherlands.


BOOK REVIEWS


In 755 closely written pages by eminent workers there is sure to be a lot for anyone to learn. And so there is for the dedicated reader, or insomnic, who has the time and energy to read this guide from cover to cover. Perhaps more relevant to the medical geneticist is how quickly, using this book, they can find the right technique to complete their desired experimental aim, for example, probe labelling for Southern blotting.

If you turn to the section on Southern blotting the advice given for synthesis and labelling of probes is for RNA probes, which is certainly not the standard method used in most laboratories for blot probing. Returning, therefore, to the index it turns out there are two separate indexes. The subject index is at the back and the process index at the front. Neither made it easy to find the necessary sections. In fact the random oligo priming method of DNA labelling comes in a section entitled ‘Second strand DNA synthesis with random oligodeoxy nucleotides as primers’ and nick translation comes in a section of its own entitled and indexed as nick translation, rather than DNA labelling. In other words this seems to be a volume for those who already know what they want to know. Nowhere that I found during this Odyssey was probe labelling by non-radioactive methods described.

Several other examples of lack of up to dateness were obvious. I could find no mention of the polymerase chain reaction, either in its own right, which could be deliberate policy, or in the section on DNA sequencing. Filters other than nitrocellulose are only mentioned extremely briefly. There is an almost total lack of illustrations. Surely clarity of presentation should be one of the principal aims of a book of this sort, but I think many readers would end up confused and frustrated.

S MALCOM


The notion that a cancer cell is totally beyond control has been challenged with greater or lesser vigour for almost a quarter of a century, but it is only recently that a whole wealth of observations has begun to come together to make a coherent picture. Henry Harris expresses it very well. “... genes do indeed exist that have the ability to override, or compensate for, the sum total of whatever genetic events might in any particular case be responsible for generating the malignant phenotype”. This Ciba Foundation Symposium brings together work from a variety of different fields all bearing on this central theme. Chapters range from the genetic control of melanoma in Xiphophorus and tumour suppressor genes in Drosophila, through experimental studies on the suppression of the malignant phenotype by cell fusion in culture, to the recognition, isolation, and cloning of the human...