

# Syndrome of the month

*Journal of Medical Genetics* 1986, **23**, 11–13

## Dubowitz syndrome

ROBIN M WINTER

*From The Kennedy-Galton Centre for Clinical Genetics, Harperbury Hospital, Shenley, Radlett, Herts WD7 9HQ.*

This syndrome was first described 20 years ago by Professor Victor Dubowitz in this Journal.<sup>1</sup> Since then about 30 possible cases have been reported, including a follow up of one of Dubowitz's cases.<sup>2</sup> The main features of the condition are intrauterine growth retardation, primordial short stature, eczematous skin eruption, and a characteristic facies. The facial abnormalities make up a recognisable gestalt, and are described below and illustrated in the photographs. Particularly good reviews of the condition are to be found in Grosse *et al.*,<sup>2</sup> Opitz *et al.*,<sup>3</sup> and Wilroy *et al.*<sup>4</sup>

### Clinical features

#### GROWTH

At birth the average weight is 2.3 kg, the average

length is 45 cm, and the average head circumference is 30 cm. Postnatal growth deficiency is usual, but not severe. Delayed bone age has been reported in approximately 50% of cases.

#### CRANIOFACIAL

The main features are microcephaly (100%), sparse hair (70%), sloping forehead (80%), telecanthus (60%), ptosis/blepharophimosis (often asymmetrical) (65%), epicanthic folds (50%), broad nose (55%), palate anomalies (high/narrow/cleft/submucous cleft) (50%), micrognathia (80%), high pitched/hoarse voice (55%), and prominent or mildly dysplastic ears (75%).

The facial appearance changes with age, but micrognathia (with a pointed chin) appears constant

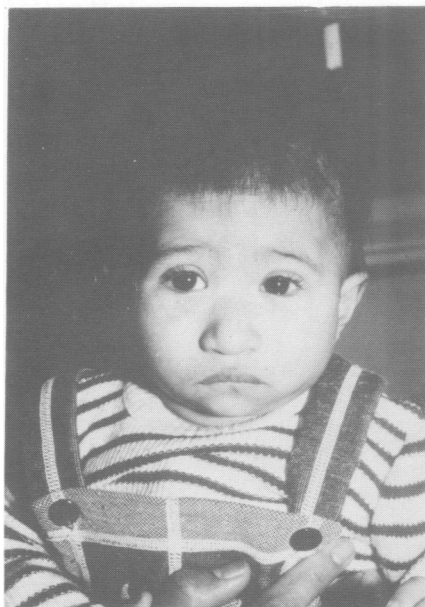


FIG 1 Case 1. Isolated case, 6 months.

Received for publication 25 September 1985.  
Accepted for publication 4 October 1985.



FIG 2 Case 1, 14 months.

at all ages. However, the contour of the face elongates with age and the nasal bridge becomes more prominent; in older patients it is high and almost continuous with the forehead. The base of the nose is broad. These changes are best illustrated in the paper by Grosse *et al.*<sup>2</sup> The supraorbital ridges

are hypoplastic with arched eyebrows, sparse laterally. Facial eczema may be present.

#### BEHAVIOUR/DEVELOPMENT

Prominent features are poor feeding (55%), vomiting and diarrhoea in early infancy (40%), hyperac-

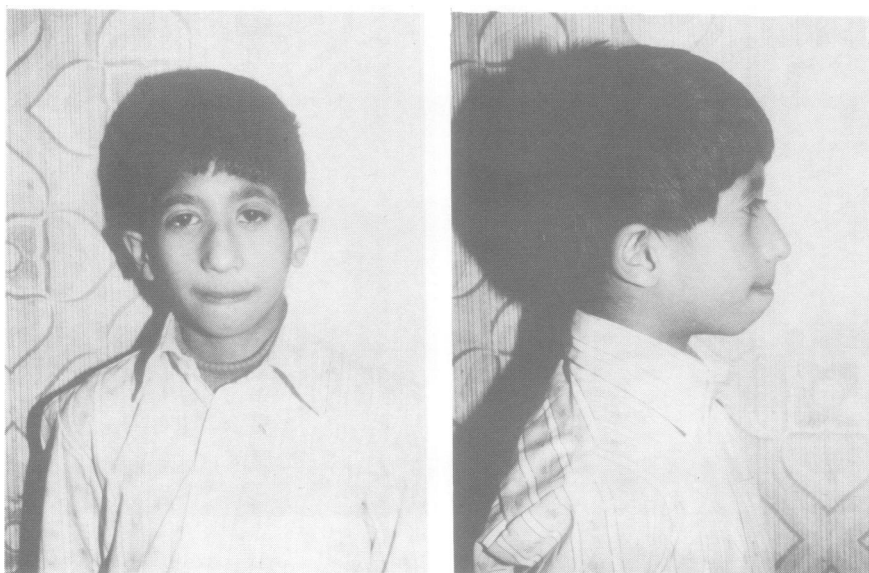


FIG 3 Case 2. Male, 11 years, one of three affected sibs. Parents are first cousins once removed.

tivity (35%), and mild to moderate mental retardation (50%). Parrish and Wilroy<sup>5</sup> found one case out of 10 to have severe mental retardation. Short attention span and impulsivity were also noted.

#### OTHER FEATURES

Those reported include eczema in infancy (50%), hypospadias/cryptorchidism (40% of males), syndactyly of the second and third toes (40%), aplastic anaemia (two cases<sup>6</sup>), immunodeficiency and malignant lymphoma/neuroblastoma (two cases<sup>7</sup>), acute lymphatic leukaemia (one case<sup>8</sup>), and bifid thumb (one case<sup>3</sup>). The incidence of minor abnormalities, such as fifth finger clinodactyly and pilonidal dimples, is also increased. Minor infections such as otitis media are also increased, and abnormal dentition with tendency to caries has been reported.

#### Inheritance

The existence of an equal sex ratio with at least six sets of affected sibs with normal parents, and at least one case of parental consanguinity,<sup>3</sup> makes autosomal recessive inheritance highly likely.

#### Differential diagnosis

Differential diagnosis includes other causes of intrauterine growth retardation, especially the fetal alcohol syndrome and Bloom syndrome.

#### Note added in proof

Moller and Gorlin<sup>9</sup> have published a follow up of the two sibs originally described by Grosse *et al*,<sup>2</sup> together with a further review of the condition.

#### References

- <sup>1</sup> Dubowitz V. Familial low birth weight dwarfism with an unusual facies and a skin eruption. *J Med Genet* 1965;2:12-7.
- <sup>2</sup> Grosse R, Gorlin RJ, Opitz JM. The Dubowitz syndrome. *Z Kinderheilkd* 1971;110:175-87.
- <sup>3</sup> Opitz JM, Pfeiffer RH, Hermann JP, Kushnick T. Studies of malformation syndromes of man. XXIV B. The Dubowitz syndrome. further observations. *Z Kinderheilkd* 1973;116:1-12.
- <sup>4</sup> Wilroy RS Jr, Tipton RE, Summitt RL. The Dubowitz syndrome. *Am J Med Genet* 1978;2:275-84.
- <sup>5</sup> Parrish JM, Wilroy RS Jr. The Dubowitz syndrome: the psychological status of ten cases at follow-up. *Am J Med Genet* 1980;6:3-8.
- <sup>6</sup> Walters TR, Desposito F. Aplastic anemia in Dubowitz syndrome. *J Pediatr* 1985;106:622-3.
- <sup>7</sup> Sauer O, Spelger G. Dubowitz syndrome with immunodeficiency and solid malignant tumour in two siblings (authors' translation). *Monatsschr Kinderheilkd* 1977;125:885-7.
- <sup>8</sup> Gröbe H. Dubowitz syndrome and acute lymphatic leukaemia. *Monatsschr Kinderheilkd* 1983;131:467-8.
- <sup>9</sup> Moller KT, Gorlin RJ. The Dubowitz syndrome: a retrospective. *J Craniofac Genet Dev Biol* 1985; suppl 1: 283-6.

Correspondence and requests for reprints to Dr R M Winter, The Kennedy-Galton Centre for Clinical Genetics, Harperbury Hospital, Harper Lane, Shenley, Radlett, Herts WD7 9HQ.