common lesions, and encephalopathy resulting in mental retardation.

Late-emerging or late-onset features of congenital rubella arise in infancy or childhood. These include interstitial pneumonia, sensorineural deafness, endocrine abnormalities such as diabetes mellitus and thyroid dysfunction, and progressive pan-encephalitis\(^1\). A chronic rash has also been reported as a manifestation of late-onset disease, although there have been only three reports of this.\(^2,7\)

In the three reports the onset of the rash was between 2-7 months in infants with other permanent features of congenital rubella. The eruption is described as a persistent erythematous rash, in one case this was reticulate with papular areas affecting face and extremities\(^6\); another nodulo-papular affecting the extremities\(^7\) and in the third mucosal affecting the face and limbs\(^7\). Atrophic changes at the site of the resolving rash as in our case has not been previously described. The exact duration of the rash is not stated, although all three reports say it was persistent. Histology of the rash in two cases\(^6,7\) showed a chronic inflammatory infiltrate in the reticular dermis that was periappendageal and perivascular as in our patient.

Other cutaneous manifestations of congenital rubella may be divided into those seen in the neonatal period and those of infancy. In the immediate neonatal period the commonest feature is the 'blueberry muffin' spots which occur in up to 50% of affected infants.\(^4\) These appear within the first 48 hours and are discrete red/blue infiltrated macules which occur mainly on the head, neck and trunk and fade over a period of weeks.

Histology of the lesions shows foci of extramedullary haemopoiesis in the dermis\(^6\). Although thrombocytopenia occurs in up to 85% of affected neonates, true petechiae and purpura are not common.\(^4\) There has been one report of five infants with congenital rubella syndrome who had discrete deep dimples over certain bony prominences, most commonly the patellae, which became less prominent as the patient grew\(^10\). Cutaneous manifestations occurring after the neonatal period include seborrhea, cutis marmorata, patchy hyperpigmentation\(^11\) and the chronic rash as described above.

A patient with congenital rubella syndrome who presented with a persistent rash and deafness is described. A chronic rash is a recognized late-onset manifestation of congenital rubella, although there have been only three previous descriptions of the rash. In addition our patient had the unusual feature of residual atrophic areas at the site of the rash which has not been previously reported.

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Hutchinson-Gilford syndrome

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Introduction

Hutchinson-Gilford syndrome (HGS), otherwise known as progeria, is an extremely rare, genetic disease characterized by growth retardation and accelerated degenerative changes of the cutaneous, musculoskeletal and cardiovascular systems. The cause is unknown and there is no effective treatment. Investigation of patients with HGS will hopefully lead to a complete understanding of its pathogenesis with resulting therapeutic possibilities and, as an interesting by-product, may allow insight into the normal ageing process.

Case report

We report the case of an 18-month-old girl, born at term, the first child of unrelated parents. She was small for gestational age. At the age of 6 months she was noted to have a dysmorphic facies, alopecia and sclerodermatous changes on her lower legs. She was found to be below the third centile for weight and head circumference. At the age of 12 months the following features in addition to the above were seen: bird-like facies, prominent eyes, micrognathia, diffuse alopecia of scalp hair, eyebrows and eyelashes, prominent scalp veins (Figure 1) and loss of subcutaneous and muscular tissue most marked on the lower limbs.

Routine haematology, biochemistry and chromosomal analysis was normal. There was no evidence of excess urinary hyaluronic acid on electrophoresis. Radiological examination revealed hypoplastic clavicles and early coxa valga.

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Figure 1. The striking facies of Hutchinson-Gilford syndrome
Table 1. Clinical features of progeria

| Always present | Usually present |
|----------------|-----------------|
| Plucked bird appearance | Sclerodermatosus skin |
| Scalp alopecia | Generalized alopecia |
| Prominent scalp veins | Eyebrow/eyelash alopecia |
| Prominent eyes | Protruding ears |
| Micrognathia | Absent ear lobes |
| Delayed abnormal dentition | Glyphic nasal tip |
| Pear-shaped thorax | Thin lips |
| Short clavicles | Circumoral cyanosis |
| Coxa valga | Patent anterior fontanelle |
| Thin limbs | High-pitched voice |
| Prominent joints | Dystrophic nails |
| Short stature | Diffuse osteoporosis |
| Weight decreased for height | |
| Incomplete sexual maturation | |
| Decreased subcutaneous fat | |
| Normal intelligence and personality | |
| Resorption of distal phalanges | |
| Hyaluronuria | |
| Low amino acid concentration in blood | |

These combined features enable the clinical diagnosis of the HGS to be made.

Discussion

The first case of progeria was described in 1886 by Johnathan Hutchinson, the second case reported by Hastings Gilford in 1904. There have to date been over 80 cases reported. It was Gilford who suggested the name progeria from the Greek word geron meaning old age. The incidence of HGS has been estimated at one in 8 million births. The disease is more common in males than females (1.5:1) and in Caucasians rather than Black Americans (97:3). Genetic studies suggest that a sporadic autosomal dominant mutation of the fertilising sperm or ovum is the most likely mode of inheritance.

The initial presentation is normally due to complaints of cutaneous abnormalities, primarily alopecia, and failure to thrive. The clinical features can be divided into those that are always present and those that are usually present (Table 1), and generally develop by the age of 2 years. Skeletal abnormalities of skull, thorax, long bones and phalanges produce a number of radiological findings which help support the clinical diagnosis.

Laboratory investigations have revealed a number of metabolic, endocrine, lipid and immunological abnormalities, none of which appear universal. Of greater interest has been the finding of an increased urinary excretion of hyaluronic acid. Hyaluronic acid has been shown to be involved in angiogenesis, morphogenesis, repair and the general integrity of the extracellular matrix and may account for the phenotype of HGS since the pathological features point toward a defect of connective tissue. In normal subjects, in the second decade of life, hyaluronic acid constitutes approximately 1% of glycosaminoglycans, whereas in the fifth to seventh decades of life, hyaluronic acid constitutes around 6% of glycosaminoglycans, suggesting an association with the normal ageing process. Problems with specimen collection and assay method used could easily explain the lack of increased urinary hyaluronic acid found in our case.

The diagnosis of HGS relies on the combination of the clinical features as there is no diagnostic test. HGS should be easily differentiated from other progeroid syndromes such as Werner's syndrome, acrogeria, Rothmund-Thomson syndrome and Cockayne's syndrome.

The average life expectancy is 13 years, with a range of 7 to 27 years. Over 80% of deaths are due to myocardial infarction or congestive cardiac failure, secondary to generalized atherosclerosis, which develops in all patients from as early as 5 years of age.

The expectation of a shortened life-span in our patient has enormous psychological and social implications.

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