

At the time of writing only two grafts remained patent, after up to two years' follow-up (see table). One of the patent grafts was aneurysmal. No other graft remained patent for more than six months, and four patients had to undergo major amputation. The remaining four patients were severely disabled by claudication or ischaemic ulceration. Other complications apart from graft occlusion and aneurysm formation have occurred. One graft was insufficiently mature for use at six weeks, although maturation was satisfactory at 12 weeks. Both early failures (in cases 4 and 5) followed reoperation for reactionary haemorrhage, probably resulting from fraying of the graft at the proximal anastomosis. One of these grafts was removed two months after operation following a secondary haemorrhage. Infection was not otherwise encountered.

#### Outcome of Sparks mandril graft

Case No	Age (yrs)	Preoperative ulceration	Fate of graft	Present state of limb
1	63	Yes	Thrombosed at 3 months	Severe claudication
2	44	No	Thrombosed at 4 months	Healed above-knee amputation
3	65	No	Patent at 18 months but aneurysmal	Satisfactory
4	59	Yes	Thrombosed at 24 hours	Healed Gritti-Stokes amputation
5	70	Yes	Thrombosed at 24 hours	Healed Gritti-Stokes amputation
6	59	Yes	Patent at 16 months	Satisfactory
7	50	No	Thrombosed at 4 months	Severe claudication
8	63	Yes	Thrombosed at 6 months	Recurrent ulceration
9	61	Yes	Thrombosed at 2 months	Claudication
10	64	Yes	Thrombosed at 1 month	Healed below-knee amputation

#### Comment

This series is small but the results correspond with those of the only other reported series.<sup>4 5</sup> There can be little doubt that the Sparks mandril compares unfavourably with more conventional materials, although it must be remembered that seven of our patients were threatened by amputation and that a completely satisfactory alternative reconstruction was not available. Nevertheless, it is difficult to escape the conclusion that the thrombogenicity and lack of inherent strength of the mandril make it unsuitable for use in the femoropopliteal segment and that some of our patients might have been better served by earlier amputation.

<sup>1</sup> Darling, R C, *et al*, *Surgery*, 1967, **61**, 31.

<sup>2</sup> Harmon, J W, and Hoar, C S, *Archives of Surgery*, 1973, **106**, 282.

<sup>3</sup> Sparks, C H, *American Journal of Surgery*, 1972, **124**, 244.

<sup>4</sup> Hallin, R W, *American Surgeon*, 1975, **41**, 550.

<sup>5</sup> Hallin, R W, *American Journal of Surgery*, 1976, **132**, 221.

(Accepted 17 June 1977)

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## Two congenital neurological abnormalities caused by thalidomide

Thalidomide (alpha-phthalimidoglutarimide) is a known teratogen. Ingestion of the drug during early pregnancy led to a variety of congenital abnormalities, especially limb deformities, defects of the external ears and duodenal atresia. Though it was stated that the central nervous system was not affected,<sup>1-3</sup> more recent reports suggest this is not so.<sup>4 5</sup> We describe a girl with two congenital neurological abnormalities presumably due to thalidomide.

#### Case report

A 14-year-old girl presented with lacrimation from the right eye while eating and a lateral gaze palsy. She had had a normal birth and at routine neonatal examination was found to have bilateral hypoplastic thumbs. Her

mother had taken thalidomide regularly during the first trimester for night sedation. At the age of 2 the child had been admitted to hospital for operation on her thumbs. The admission notes state that she had "abnormal eyes." Nevertheless, the abnormal eye movements had been noticed by her mother only for about four years before the present admission. She had not complained of any difficulty in moving her eyes, and had obviously learned to compensate by head movements. The lacrimation from the right eye had first been noticed by her mother after she had been weaned on to solid food.

She had a horizontal gaze palsy to both sides, an amblyopic right eye with gross visual impairment, a minimal right-sided ptosis, production of tears from the right eye during eating, and bilateral hypoplastic thumbs. The results of extensive investigations were all normal. X-ray films of the hands showed abnormalities of the scaphoid, trapezium, trapezoid, and the first metacarpal bone of both hands. They also showed abnormal articulation of the metacarpophalangeal joint of the left thumb. A cervical spine x-ray film showed fusion of the second and third cervical vertebrae. Electronystagmography showed no movements of the eyes in a horizontal direction, but vertical movements were within normal limits.

#### Comment

Cranial nerve palsies have been reported as a thalidomide effect, but these were attributed to osseous changes within the bony foramina or canals through which the nerves passed.<sup>1-3</sup> Recent reports have shown a high incidence of cranial nerve abnormalities, abnormal tear production and epilepsy, attributed directly to thalidomide.<sup>4 5</sup> In our patient the gaze palsy cannot be explained by the entrapment theory, but must be due to a more central lesion in or around the sixth nerve nucleus. The abnormal right-sided lacrimation could also be explained by a midbrain lesion. The association of rudimentary thumbs, two neurological lesions, and the history of ingestion of thalidomide is further evidence that thalidomide can cause congenital neurological defects.

We thank Dr R G Lascelles for his advice and criticism.

<sup>1</sup> Catalog of Teratogenic agents. Thomas H Shepard. Baltimore, Johns Hopkins University Press.

<sup>2</sup> Ear abnormalities and cranial nerve palsies in Thalidomide children. d'Avignon, M, and Barr, B, *Archives of Otolaryngology*, 1964, **80**, 136.

<sup>3</sup> Rafuse, E V, Arstikaitis, M, and Brent, H P, *Canadian Journal of Ophthalmology*, 1967, **222**.

<sup>4</sup> Newman, C G H, *Proceedings of The Royal Society of Medicine*, 1977, **70**, 225.

<sup>5</sup> Stephenson, J P B, *Developmental Medicine and Child Neurology*, 1976, **18**, 189.

(Accepted 17 June 1977)

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## Return to normal of Argyll-Robertson pupils after treatment

Argyll-Robertson pupils—that is, pupils which do not react to light but do to accommodation—are often associated with neurosyphilis, but sometimes occur as an isolated finding without the disease. Nevertheless, it is essential that a complete physical, neurological (including examination of the spinal fluid), and serological examination should be carried out. I report here a case of Argyll-Robertson pupils in a man with syphilis, which returned to normal after treatment.

#### Case report

A 46-year-old homosexual man gave a history of a rectal infection in 1973 which was treated with 3.75 megaunits of penicillin, a dose which would almost certainly have arrested any incubating syphilis. Serological tests at the start of treatment for gonorrhoea were negative for syphilis and remained so during his three-monthly follow-up. He was referred by his general practitioner to the special clinic in February 1977 with a three-week history of