The presence of such separate tumours means that simple enucleation of the tumour may be followed by recurrence, not only in the capsule and scar but also by appearance of a new tumour. Such a possibility is a further reason why parotidectomy should replace all lesser procedures on these tumours. Patey (1953) felt that it was only necessary to remove the glandular tissue in the immediate neighbourhood of the tumour, but examination of the specimen obtained in the second case reported here shows that this might still be inadequate.

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REFERENCES

- Fitzgibbon, G. M. (1953). *Proc. roy. Soc. Med.*, **46**, 1016.
Patey, D. H. (1953). *Ibid.*, **46**, 1020.
Redon, H. (1953). *Ibid.*, **46**, 1013.
Willis, R. A. (1948). *Pathology of Tumours*. Butterworth, London.

Idiocy in One of Monozygotic Twins

It is usual for monozygotic twins to resemble each other very closely; occasionally they may differ a little, but it is very rare to find a great discrepancy. Mental deficiency to imbecility level has been reported (Hobbs, 1941) in the identical twin of a normal person; this note records monozygotic twins, one of whom was normal and the other a microcephalic idiot.

A married primipara aged 30 was admitted to Thorpe Coombe Maternity Hospital on February 28, 1953, for her confinement. Her health had been good during her pregnancy, but as she had been treated for thyrotoxicosis during the previous spring she was examined by the consultant physician. The report was satisfactory; there was a slight enlargement of her thyroid, but that was all. Her blood group was A, Rh negative (to D); her husband's group was A, Rh positive (to D), but antibodies were not found in her blood. The expected date of delivery was March 15; labour started on February 27, but the first stage was very protracted, lasting 74½ hours. She was delivered of female twins on March 3; the first, a vertex R.O.A., was delivered normally. The second was turned manually to a vertex L.O.A. and was delivered by forceps after episiotomy. The cause of the delay was primary uterine inertia. Examination of the placenta showed that the twins were monochorionic; this was surprising, as the first weighed 5 lb. 15 oz. (2.7 kg.), and the second only 3 lb. 15 oz. (1.8 kg.). There was no evidence of rhesus incompatibility; the babies' haemoglobins were respectively 140% and 148% on the fourth day, and 130% and 120% on the ninth.

The first baby made good progress, and was discharged with her mother on the 15th day weighing 6 lb. 12½ oz. (3.1 kg.), a gain of 13½ oz. (0.38 kg.). The second twin did moderately well for three days, but on the fourth and fifth days she became very poorly. Her colour was ashen-grey, she was limp, refused feeds, vomited once or twice, and became very dehydrated. Examination at that time did not disclose any definite lesion; she was treated with subcutaneous fluids and penicillin, and revived. She suffered a second, minor setback on March 25, when she had a head cold and her stools became loose and greenish, but she soon recovered from this; nasal and rectal swabs grew no pathogens. Thereafter her progress was uneventful, and she was discharged on her 50th day (April 22), weighing 5 lb. 10 oz. (2.6 kg.), a gain of 27 oz. (0.76 kg.).

I saw the twins again on February 16, 1954, at the request of their family doctor (Dr. Bhatia, of Chingford); they were then 11½ months old. The second twin weighed 17 lb. 10 oz. (8 kg.) fully dressed, and the circumference of her head was only 15 in. (38 cm.). She was extremely limp, made no attempt to sit up, and was apparently blind. Both her thumbs were adducted into the palms, but this seemed to be due to a minor deformity and not to spasticity; certainly there was nothing else to suggest cerebral palsy. Her eyes were examined by the hospital's ophthalmologist (Mr. H. Klein), who reported that there was nothing grossly wrong with the optical apparatus, so that the blindness was

probably central. This was confirmed at the local authority eye clinic (Dr. G. F. Ensor). The other twin weighed 21 lb. 6 oz. (9.7 kg.) and seemed normal in every respect. She sat up at 8 months, spoke a few words at 9–10 months, but could not walk yet. She was beginning to acquire sphincter control.

The following month the whole family were examined at the hospital by Professor L. S. Penrose and Dr. Sylvia Lawler, of the Galton Laboratory, whose report on the blood groups and the measurements of the family is shown in the Table. On the basis of these figures alone they conclude that there is a 49:1 likelihood that the twins were in fact monozygotic.

Report on Blood Groups and Head Measurements of the Family

Blood Groups

	Father	Mother	Twins
ABO	A ₂	A ₁	A ₂
MNS	MsNs	MsNs	MsNs
Rh	cDE/cde; R ₂ r	cde/cde; rr	cDE/cde; R ₂ r
P	P+	P+	P+
Lewis	Le (a-)	Le (a-)	Le (a+)
Kell	K-	K-	K-
Lutheran	Lu (a-)	Lu (a-)	Lu (a-)
Duffy	Fy (a-)	Fy (a+)	Fy (a-)
Secretor	Sec.	Sec.	Non-sec.

Head Measurements

	Head Breadth (mm.)	Head Length (mm.)
Father	154	211
Control male ± S.D.	152 ± 5	194 ± 6
Mother	151	185
Control female ± S.D.	146 ± 5	185 ± 5
First twin	127	159
Second twin	114	151
Control female, 1 year old ± S.D.	123 ± 4	155 ± 5

S.D. = standard deviation.

The second twin was seen again on December 14 (21 months old). She had made no progress. She could not sit up yet, and did not recognize her mother. It was doubtful whether she had any perception of light. Her head was 16½ in. (42 cm.) round—the other twin's head measured 19 in. (48 cm.). On this occasion further measurements were taken by a technician from the Galton Laboratory, on the basis of which Professor Penrose estimated the probability of genetic identity to be raised to 99:1. It is of course impossible to prove identity by these measurements.

There is an interesting point in the family history. The father's father, mother, and brother all suffered from cataracts, and Dr. Ensor in his report mentions slight lamellar cataracts in both eyes of the second twin.

COMMENT

The probability that these twins grew from the same fertilized ovum is very high. More evidence may be forthcoming from comparing their fingerprints, and this will be sought for when they are bigger.

It is very rare that monozygotic twins show such a disparity. One of these girls is quite normal, the other a blind microcephalic idiot.

It is possible that the latter was normal at birth, but was severely damaged by an illness on her fourth and fifth days. I think this is very unlikely, for the following two reasons: (1) the children were so grossly different at birth, one weighing 5 lb. 15 oz. (2.7 kg.), the other only 3 lb. 15 oz. (1.8 kg.); and (2) the latter's illness showed none of the features associated with brain damage, such as the cerebral cry or convulsions, and the child was neither spastic nor athetoid. I think it much more likely that the disturbance was due to her already impaired brain.

I should like to thank my colleagues who have permitted me to quote from their reports, and particularly Professor Penrose for his encouragement and advice.

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REFERENCE

- Hobbs, G. E. (1941). *Amer. J. Psychiat.*, **98**, 447.