

aorta did not cross the pulmonary artery, which also arose from the common right ventricle (double outlet right ventricle) (fig 2). Serial histological sections showed a bifurcating atrioventricular system in the septum of twin 1 but not twin 2. In neither twin was an atrioventricular node found.

In addition to the cardiovascular anomalies, the liver was conjoined and the small bowel was common to both twins. Normally formed female urogenital, central nervous, and respiratory systems were present.

### Discussion

Congenital cardiac malformations are often present in conjoined twins<sup>3,4</sup> and are usually severe. The site of union of hearts is of practical importance when surgical intervention is considered and the cardiovascular evaluation must be directed to establish whether there is only a pericardial union, whether there is atrial connection but ventricular separation, and whether there is a ventricular connection.<sup>3</sup>

Separation of thoracopagus twins with ventricular fusion has been attempted but without success.<sup>5</sup> It has been suggested, however, that the possibility

of saving at least one twin of the pair should be always considered.<sup>6</sup> Despite recent progress with surgical techniques we consider that ventricular connection is still an unmanageable congenital malformation and we doubt whether attempts to separate fused ventricles can lead to satisfactory results.

### References

- 1 Noonan JA. Twins, conjoined twins and cardiac defects. *Am J Dis Child* 1978;132:17-8.
- 2 Tandom R, Sterns LP, Edwards JE. Thoracopagus twins. *Arch Pathol* 1974;98:248-51.
- 3 Izukawa T, Langford Kidd BS, Moes CAF, *et al.* Assessment of the cardiovascular system in conjoined thoracopagus twins. *Am J Dis Child* 1978;132:19-24.
- 4 Patel R, Fox K, Dawson J, Taylor JFN, Graham GR. Cardiovascular anomalies in thoracopagus twins and the importance of preoperative cardiac evaluation. *Br Heart J* 1977;39:1254-8.
- 5 Edwards WD, Hagel DR, Thompson J, Wharton M, Edwards JE. Conjoined thoracopagus twins. *Circulation* 1977;56:491-7.
- 6 Kaplan M, Glaser J, Eidelman AI. Early cardiac evaluation of thoracically conjoined twins. *Cardiology* 1983;70:152-5.

---

## Notices

### British Cardiac Society

The Autumn Meeting will be held at the Wembley Conference Centre, London, on 25 to 27 November 1986, and the closing date for receipt of abstracts was 11 July 1986.

The Annual General Meeting for 1987 will take place in Dundee on 8 and 9 April 1987, and the closing date for receipt of abstracts will be 6 January 1987.

### Interaction between heart and lung

An International Congress on Interaction between Heart and Lung sponsored by the European Society of Cardiology and the European Society for Clinical Respiratory Physiology will be held in Munich on 9 to 11 April 1987. Inquiries to Dr H-P Emslander, First Medical Clinic, Klinikum rechts der Isar der TUM, Ismaninger Strasse 22, D-8000 Munich 80, Federal Republic of Germany.