fibrosis patients using intraoesophageal pH monitoring is not well tolerated by patients with cystic fibrosis with established pulmonary disease, this is an area which merits further study.

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Paracetamol suppositories after cardiac surgery

Sir,—We read with interest the article by Hopkins, Underhill, and Booker concerning rectal absorption of paracetamol.1 We have performed a similar study on 20 children, mean age 3-75 years (range 0-28-10-58 years), giving paracetamol suppositories (Macarthy Laboratories Ltd) when they became febrile, four to six hours after the cessation of cardiopulmonary bypass (11-14 mg/kg body weight). Rectal temperature was monitored continually and plasma paracetamol concentrations were measured every hour for four hours.

The minimum therapeutic plasma paracetamol concentration for an antipyretic effect is 66 µmol/l.1,2 In 18 of our 20 patients the paracetamol concentration never exceeded 25 µmol/l (the lower limit of detection in our assay) and reached only 35 and 29 µmol/l (at two hours) in the remaining two patients. In 10, K-Y Lubricating Jelly (Johnson and Johnson) was used to aid insertion of the suppositories, but this did not effect absorption. There was no fall in rectal temperature over the four hour period.

We analysed the batch of suppositories and found an acceptable 92% bioavailability. As doses of 10 mg/kg have been shown to reduce temperature in preoperative children,3 we suggest that the poor absorption may be due to patient factors, such as an ileus or interference from anaesthetic drugs. The study by Hopkins et al would support this.4 Although similar doses were used, the plasma paracetamol concentrations were higher (albeit subtherapeutic). As the suppositories were given much later (24 hours after operation), it suggests that the effects of some drug or unknown factor could be wearing off. It would be interesting to re-examine these patients one week later. Whether poor rectal absorption is specific to cardiac surgery and whether other drugs are similarly affected, is uncertain, but needs careful evaluation.

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