ABDOMINAL ASPIRATION HYSTEROTOMY

SIR,—Patients for vaginal termination and abdominal sterilisation are subjected to the following risks of complications which can be avoided by the method of abdominal aspiration hysterotomy and sterilisation: tearing of the cervix and hæmorrhage; uterine hæmorrhage; incomplete evacuation; and uterine perforation and damage to intra-abdominal viscera.

Abdominal aspiration hysterotomy not only avoids the described risks but also seems not to have those complications associated with routine hysterotomies. It is a speedy one-stage procedure, but since it involves making an incision into the uterus it is only done in patients who are also being sterilised.

The patient is prepared and opened in the usual way as for hysterotomy. The uterus is held in one hand and a small 1 cm. midline vertical perforating incision is made. A suitably sized suction curette is forced through the incision; it is essential that the uterine incision fits tightly round the curette so as to control bleeding from the uterine wound. The contents are then evacuated, ergometrine (0·5 mg.) having been given intravenously. As the uterus is held in the hand, there is no danger of accidental perforation with damage to abdominal viscera. Uterine hæmorrhage is also controlled by manual compression. The uterine cavity is explored with a finger to check on completion of evacuation.

The uterine incision is closed with two or three wide deep interrupted no. 2 chromic catgut sutures (atraumatic). Sterilisation is performed in the usual way and the abdomen closed.

This procedure is very simple in termination up to 14 weeks' gestation. For gestations of 14–16 weeks, the largest (14 mm.) suction curette is required and completion of evacuation may be necessary with sponge holders, but still through this small 1 cm. uterine incision.

The only criticisms of this method could be: if sterilisation should fail, or the patient later requests reversal of sterilisation, the pregnancy would be in an unnecessarily scarred uterus; and there has been reported an increased incidence of menstrual disturbances in patients with a scarred uterus as in cæsarean sections.[1]

Over the past few years I have used this method without problems.

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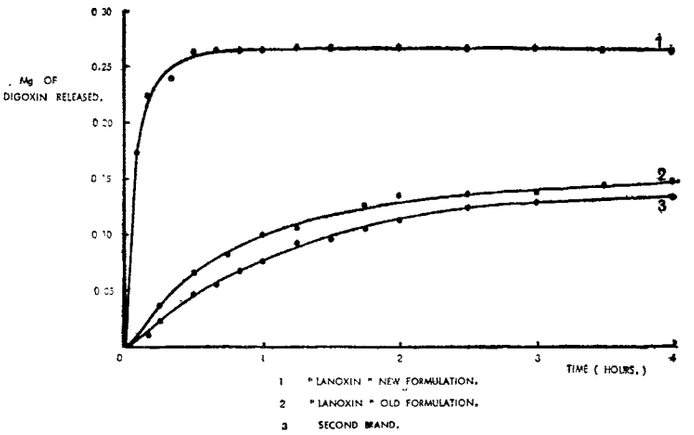
BIOAVAILABILITY OF DIGOXIN

SIR,—We have been interested in the work on bioavailability of digoxin.[2–6] It is likely that, for a drug so sparingly soluble in water as digoxin, the rate of absorption is more dependent on the rate of release of drug into solution (dissolution-rate) than on disintegration-time.

We have investigated the dissolution-rates of both the new and old formulations of ' Lanoxin ' and several other brands of digoxin tablets *B.P.* available in the United Kingdom. The results were obtained using a modification of the beaker method for determination of dissolution-rate [7] and are shown in the accompanying figure. Each line represents a mean of two independent determinations. This demonstrates the striking difference between the two lanoxin formulations and shows the dissolution profile of a second brand for comparison. Initial studies suggest that



Dissolution-rates of three preparations of digoxin.

several, but not all, other brands approximate to that of the second brand on the graph and, therefore, to the original lanoxin tablets. This may explain why brand differences in digoxin, at least in this country, have not, until now, been clinically important. Investigations are continuing to study possible correlations between in-vitro and in-vivo findings.

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NEW FORMULATION OF LANOXIN: EXPECTED PLASMA LEVELS OF DIGOXIN

SIR,—Following the warning circulated by Burroughs Wellcome about the increased availability of digoxin in the new formulation of 'Lanoxin', we should like to present some initial results obtained from patients receiving the new preparation. These are compared with retrospective results from patients on the old preparation. A total of 48 specimens were processed.

Patients were unselected with regard to age or sex and were divided into two groups, those receiving 0·25 mg. lanoxin once per day and those on a twice-daily regimen. As is our custom, we measured plasma-digoxin levels at 2 hours and 6–8 hours after the dose. The results were:

Preparation	*Dose*			
	0·25 mg. daily		*0·25 mg. twice daily*	
	Peak (2 hr.)	*Plateau (6–8 hr.)*	*Peak (2 hr.)*	*Plateau (6–8 hr.)*
Lanoxin original:				
Mean S.D.	1·18	0·65	2·86	1·08
Lanoxin new	0·31	0·14	0·81	0·24
formulation:	2·84	2·03	3·38	2·64
Mean S.D.	1·10	0·87	0·69	0·85

From these initial studies we conclude that:

(1) The effective plasma level of the new preparation is at least twice that of the old preparation in most cases.
(2) 30% of the plateau levels were found to be above the accepted upper therapeutic level of 2·5 ng. per ml. Despite this, only 1 patient showed clinical signs of toxicity, which disappeared on halving the dose.
(3) The range of values in the group taking the new preparation appears to be wider, possibly reflecting greater individual variation in absorption.

We thank the house-officers of the medical units for their cooperation.

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