æmia, which is even more dramatic when prophylaxis is given to patients without overt C.N.S. involvement. C.N.S. prophylaxis in leukæmic children should be re-evaluated.

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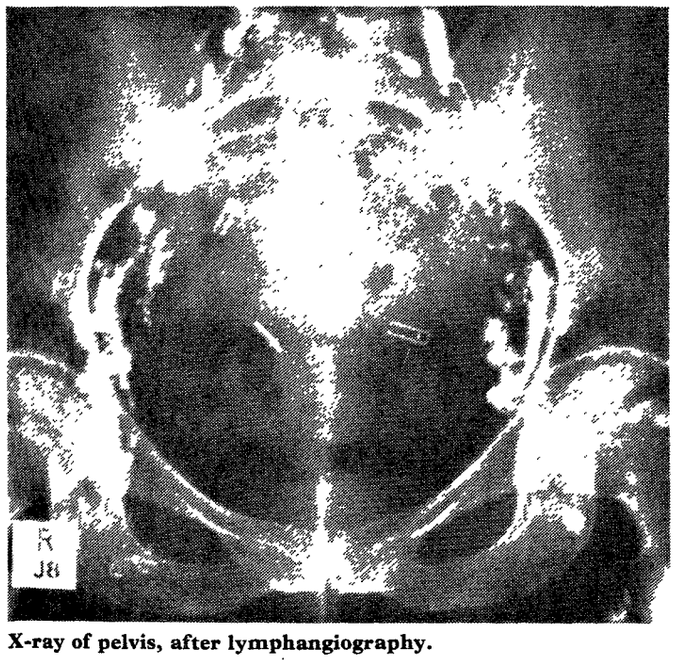
LAPAROSCOPY, CLIP OCCLUSION, AND UTERINE CANCER

SIR,—For several years we have been using laparoscopy as part of the initial and/or subsequent assessment of patients with suspected or proven gynæcological cancer. If uterine malignancy is suspected cystoscopy and hysteroscopy are done as well.

Laparoscopy may allow more accurate detection of uterine size, assist with detection of spread to the serosal surface and involvement with adjacent structures, facilitate aspiration of peritoneal exudate for cytological examination, and establish whether there are pelvic or more distant intra-abdominal metastases. The findings may modify the accepted therapeutic approaches of surgery, radiotherapy, and chemotherapy used either alone or in combination. In particular the more accurate evaluation of the extent of uterine cancer may suggest alterations in radiotherapeutic regimens, particularly the respective roles of intracavity and external irradiation.

Lately we have used another facility afforded by laparoscopy for such patients by applying radio-opaque tubal occlusive clips, normally used for sterilisation, for two specific purposes—to block the proximal fallopian tube at the uterine cornu, thereby preventing spillage of malignant cells into the pelvis, and to outline the dimensions of the uterus and/or extent of the tumour thereby assisting more accurate localisation of subsequent external radiotherapy. The uterus may be delineated by applying clips superiorly at the cornu on either side of the fundus and inferiorly either posteriorly at insertion of the uterosacral ligaments into the cervix or anteriorly on the peritoneum immediately over the lateral aspect of the cervix. The figure shows Rocket clips applied at the fundus and anterolaterally on each side of the cervix in a patient with an extensive endocervical tumour, the extent of which was only really apparent after laparoscopy.



X-ray of pelvis, after lymphangiography.

Rocket clips are shown applied at the cornua and on either side of the cervix.

Considerable care is necessary in applying such markers, especially posteriorly at the cervix, but we think that laparoscopy and the use of such devices should assist with the quantitative management of some patients with gynæcological cancer.

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EXTRA-AMNIOTIC ŒSTROGENS FOR THE UNFAVOURABLE CERVIX

SIR,—As an alternative to extra-amniotic prostaglandin gel for pre-induction ripening of the cervix, Gordon and Calder[1] tested the administration, by the same route, of 150 mg œstradiol valerate suspended in the same vehicle. They concluded that œstrogen treatment produced results similar to those obtained with the prostaglandin gel but with notably less uterine stimulation. We have modified Gordon and Calder's method, using natural œstrogens in place of the œstradiol ester. We selected patients who had an unfavourable cervix at term (38–42 weeks) but whose pregnancy was otherwise normal, the fetus being apparently healthy, singleton, and in cephalic presentation. Patients with signs of cephalopelvic disproportion and those with a history of uterine surgery were excluded. Informed consent was obtained.

IMPROVEMENT OF CERVICAL SCORE IN WOMEN TREATED WITH EXTRA-AMNIOTIC TYLOSE GEL WITH OR WITHOUT OESTROGEN

Oestrogen	No.	Improvement in Bishop score* (mean ±S.E.M., and range)	
Nulliparæ:			
Oestradiol	17	3·9±0·4	(2–6·5)
Oestriol	19	4·2±0·4	(0·5–6·5)
None	18	2·9±0·4	(0–6·5)
Parous women:			
Oestradiol	14	2·9±0·4	(1–6)
Oestriol	14	3·2±0·4	(0·5–6·5)
None	14	2·6±0·3	(1–5)

* "Original" scores; U.K. modified Bishop scores were very similar.

96 women (54 nulliparæ) were randomly assigned to treatment, at 8 P.M., with 8 ml 5% 'Tylose' (methylhydroxyethyl cellulose) containing 180 mg 17β-œstradiol or 250 mg œstriol incorporated into the same excipient or tylose without any œstrogen. The patients were re-examined 12 h later; if the cervix was favourable for induction, low amniotomy was performed and, when indicated, supplemented by intravenous oxytocin. Assessment of the cervix was based on both the original Bishop score[2] and its U.K. modification.[3] Our three groups were comparable with respect to maternal age and weight, duration of gestation, and initial pelvic score.

The efficacy of the ripening procedure, expressed as the mean improvement in cervical scores, is shown in the table. The only significant difference (t=2·40, P<0·02) was that between the œstriol-treated and the placebo-treated nulliparæ. The effect of the indwelling catheter, which was always left in utero after the instillation, was much greater than we expected. Our trial partly supports the study by Gordon and

1. Gordon, A. J., Calder, A. A. *Lancet*, 1977, ii, 1319.
2. Bishop, E. H. *Obstet. Gynec.* 1964, **24**, 266.
3. Calder, A. A., Embrey, M. P., Hillier, K. *J. Obstet. Gynæc. Br. Commonw.* 1974, **81**, 39.
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