could be evaluated as even better. As the possibility for iatrogenic damage after intra-articular cortisone injections has been reported²⁻⁶ to be higher than was observed after intra-articular or especially intramuscular glycosaminoglycan polysulphate therapy it seems justified to suggest this treatment in cases of painful knee joints after sports trauma and strenuous exercise.

SEPPA SANTAVIRTA

Fourth Department of Surgery,
University Central Hospital,
Helsinki

ANTTI U ARSTILA

Department of Cellular Biology,
University of Jyväskylä

TAPANI SORVARI

Department of Pathology,
University of Kuopio,
Finland

- ¹ Santavirta, S., Arstila, A. U. and Sorvari, T., in preparation.
² Behrens, E., Shepherd, N., and Mitchell, N., *Journal of Bone and Joint Surgery*, 1975, **57A**, 70.
³ Mankin, H., and Genger, K., *Journal of Bone and Joint Surgery*, 1966, **48A**, 383.
⁴ Salter, R., Gross, A., and Hall, J., *Canadian Medical Association Journal*, 1967, **97**, 374.
⁵ Steinberg, C., et al., *Journal of the American Medical Association*, 1962, **181**, 851.
⁶ Stohr, A., and Hellinger, J., *Beiträge zur Orthopädie und Traumatologie*, 1977, **24**, 330.

Septic abortion and IUCDs

SIR,—We were interested in the comments of both Dr E. S. B. Wilson and Mr W. G. Mills (18 March, p. 719) on our report of septic abortion and septicaemia in a Gravigard (Copper-7) user (25 February, p. 481). In reply to Dr Wilson we agree that culture of a high vaginal swab (HVS) is unsatisfactory in diagnosing the bacteriological cause of pelvic inflammatory disease (PID) and indeed one of us has previously drawn attention to this point.¹ However, in our report we were referring to the intrauterine infection of products of conception and, while an intracervical or intrauterine sample may have been preferable, a HVS gives a picture of the bacterial flora of the upper vagina from which the infecting agent will have ascended into the uterus.

Dr Wilson has obtained pure cultures of bacteria from intrauterine contraceptive devices (IUCDs) removed from patients with signs and symptoms of pelvic infection. However, PID is difficult to diagnose without laparoscopy² and doubt must therefore exist as to whether these cultures necessarily represent bacteria causing tubal infection. Although contamination by vaginal organisms can be avoided by careful removal, it is impossible to avoid contaminating the IUCD with cervical mucus during its passage through the cervical canal and the cultures may merely represent the normal flora of the lower canal.

We cannot offer Mr Mills any further information on the time interval since insertion or on the length of the tail. However, although with other devices excessive length of tail is unlikely to be the explanation for its continued presence in the vagina at 16 weeks' gestation, the Gravigard is a special case. It differs from other current devices in that as supplied by the manufacturers the tail forms a loop alongside the device predisposing to several problems after insertion.³ If the Gravigard is fitted with the loop of tail left in the uterus, as is now recommended, the total length of tail is greater than that of other devices. As the uterus enlarges during pregnancy this slack may need to be taken up before the vaginal end

of the tail is pulled into the cavity. Once the tail has disappeared the bridge between the sterile uterus and the vagina with its organisms has been broken. Our reason for cutting the tail flush with the external os if the device cannot be removed is to reduce the time that it is in contact with the vagina.

R A SPARKS
A T LETCHWORTH

University Department of Human
Reproduction and Obstetrics,
Southampton General Hospital,
Southampton

- ¹ Sparks, R. A., and Davies, A. J., *British Journal of Venereal Diseases*, 1976, **52**, 178.
² Jacobson, L., and Westrom, L., *American Journal of Obstetrics and Gynecology*, 1969, **105**, 1088.
³ Sparks, R. A., *British Medical Journal*, 1977, **2**, 1351.

Problems with IUCD tails

SIR,—Further to my letter (19 November, p. 1351) and that of Mr Geoffrey Chamberlain (28 January, p. 237), I should like to describe another problem with IUCD tails, which may be previously unreported.

A 32-year-old multiparous patient was seen for a routine IUCD check and the tail of the Lippes loop, which had been fitted six years previously, was protruding not from the external cervical os but from the vaginal surface of the upper lip of the cervix 7.5 mm from the os. The cervix was healthy with squamous epithelium up to the os—that is, there was no columnar epithelium outside the canal forming an "erosion." Presumably an erosion had previously been present and during the replacement of the columnar epithelium by squamous epithelium the metaplastic squamous epithelium had grown over the tail incorporating it into the cervix. The device was removed by pulling on the tail, which easily cut through the epithelium covering it. This complication is presumably less likely to occur with copper devices, which are routinely replaced every few years.

R A SPARKS

Southampton General Hospital,
Southampton

Amniocentesis for the 35s and over

SIR,—There is currently uncertainty about the selection of pregnant women who should be offered amniocentesis. Galjaard¹ has stated that "some centres, as in Scandinavia, accept all women over 35, others take 40 as the limit and most groups, including our own, consider the age of 38 and older as an indication for amniocentesis."

The findings from 599 amniocentesis specimens received in the department of pathology from patients aged 35 years and over are shown in the table. These include 17 patients aged 35-39 and 11 patients aged 40 or more who had had a previous child with a chromosomal abnormality. There were also 23 patients aged 35-39 and five patients aged

40 or more who had a family history of neural tube defect. The prevalence of chromosomal abnormalities in mothers over 40 years was 6.15%. However, in mothers aged 35-39 there was a relatively high prevalence of abnormalities (1.98%), much higher than that cited, for instance, by Philip *et al.*² (0.2%), which has already been commented upon.³ We have diagnosed only one trisomy 21 where there has been a previously affected sibling.

Trisomy 21 was the most common abnormality in our series and it is of note that most of the cost-benefit analyses reviewed by Mikkelsen *et al.*⁴ were based on the prevalence of this syndrome. It has already been observed that there is a discrepancy between the prevalence of this syndrome as detected on amniocentesis and its estimated prevalence in a liveborn population.^{5,6} This may ultimately be explained following post-mortem chromosomal surveys of late abortions and stillbirths. Nevertheless, it would be unwise to allow this discrepancy to influence our judgment regarding the cost benefit of amniocentesis in women at different maternal ages. We consider that our results highlight the necessity for more widespread application of amniocentesis in the 35 and over age group. However, the ultimate decision should rest with the parents and the availability of clinical and laboratory expertise.

A DOUGLAS BAIN
SUSAN M BOWSER-RILEY
IAN I SMITH

Department of Pathology,
Royal Hospital for Sick Children
and the University of Edinburgh

J B SCRIMGEOUR

Department of Obstetrics and
Gynaecology,
Western General Hospital
and the University of Edinburgh

- ¹ Galjaard, H., in *Towards the Prevention of Fetal Malformation*, ed J. B. Scrimgeour. Edinburgh, University Press, 1978.
² Philip, J., Bang, J., and Madsen, M., *British Medical Journal*, 1977, **2**, 1117.
³ Steven, J. D., and Scrimgeour, J. B., *British Medical Journal*, 1978, **1**, 301.
⁴ Mikkelsen, M., Nielsen, G., and Rasmussen, E., in *Towards the Prevention of Fetal Malformation*, ed J. B. Scrimgeour. Edinburgh, University Press, 1978.
⁵ Ferguson-Smith, M. A., *Lancet*, 1976, **2**, 252.
⁶ Bain, A. D., et al., *Lancet*, 1976, **2**, 375.

Why blame the pill?

SIR,—I note with concern that deaths from thrombosis occurring in young and middle-aged women who are on the contraceptive pill are being increasingly reported to the coroner and verdicts of accidental death are being returned. As there is no pathological feature to distinguish these cases from other cases of thrombosis not associated with this drug it would appear that these verdicts are based on the slight statistical increase in deaths from these causes noted in the various surveys of the contraceptive pill. I am surprised, therefore, not to have read of any deaths from bronchogenic carcinoma being the subject of an inquest in view of the fact that the link between

Chromosomal abnormalities in 599 amniocentesis specimens from patients aged 35 and over

Maternal age (years)	Total analysed 1975-7	Chromosome abnormality			Totals	Percentage abnormal
		Trisomy 21	Trisomy 18	Other*		
35-39	404	4	2	2	8	1.98
≥40	195	7	3	2	12	6.15
Totals	599	11	5	4	20	3.34

*These were: for age 35-39 : 47,XY,+mar; 47,XXX
for age ≥40 : 46,XX/47,XX,+r(mar); 45,X