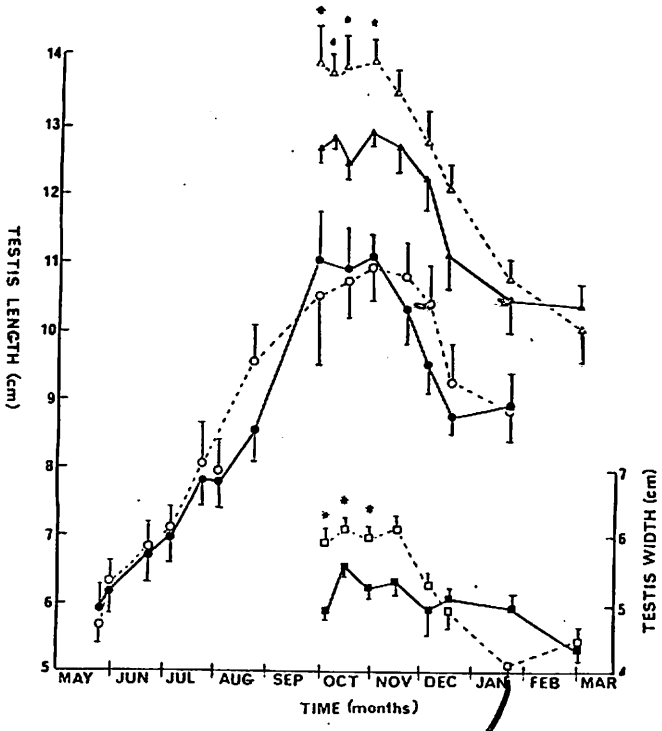

FIG 1: Mean testis length and width of rams. Lambs: homosocial length ●; heterosocial length ○. Older animals: homosocial length ▲, width ■; heterosocial length △, width □. Vertical bars represent SEM. * indicates a significant difference ($P < 0.05$) between ▲ and △ or ■ and □ at a given date. No significant difference was found between ● and ○ at any date

seasonal fluctuations in temperature and photo-period. Five ovariectomised ewes were housed adjacent to one group (heterosocials) from June onwards, separated by a barred gate which allowed only minor physical contact. The ewes were brought into oestrus every 18 days by standard hormone therapy, so that at least one ewe showed oestrus each week. No females were allowed near the second (homosocial) group. Testis length was measured regularly using calibrated calipers from May onwards in the lambs and from October onwards in the older animals in which testis width was also measured. Results are shown in Fig 1. The seasonal variation in testis size has been noted previously by Pelletier (1971) who also concluded that an excellent correlation existed between testis length and weight.

It would appear that the younger animals show no differences in testis size as a result of female stimuli. However, significantly greater testis length and width were apparent in the older heterosocial compared to homosocial animals when the testes were seasonally larger, suggesting a marked and long term effect on the endocrine system of these animals. Preliminary data indicate that plasma testosterone levels are significantly higher in the older heterosocials compared with homosocials, with a similar but non-significant trend in younger animals. We feel this situation merits further study particularly in relation to semen production for if increased testis size is reflected in increased semen output, these observations could indicate the most advantageous rearing and housing procedures for males used for artificial insemination. Furthermore, the observation that testis size can be markedly affected by female proximity is worthy of note in view of the possible use of this parameter for predicting genetic potential as outlined by Land (1974).

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Case of a constipated rhino

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THE warden of the Meru National Park, Kenya, sent a radio-call asking me to visit a nine-year-old white rhinoceros (*Ceratotherium simum simum*) cow which had been attacked by a male and severely horned around its rear about three days before. The animal was one of the five remaining white rhino of a group imported in 1966. When I saw the animal it had not passed stool since being horned, some 80 hours previously. Only a very small quantity of urine had been passed on the third day, and that with difficulty. The animal had not grazed at all for 24 hours and was now refusing lucerne hay. It was lying down and could only be persuaded to move by vigorous prodding and pushing. It was still drinking, but water consumption was down to less than half normal, as judged by the guard.

The temperature was 99·6°F (ca 36°C) and the pulse 60 per min, and of poor volume. The vulva and peri-anal tissues were markedly swollen, and there were one or two shallow horn wounds between the legs below the vulva.

The animal resented anything other than mild exploration of the lesions, and so I immobilised her with fentanyl citrate and azaperone, using a dose of citrate 70 mg fentanyl, and 300 mg azaperone. With this dose she allowed extensive evacuation of the rectum for just under one hour, but remained standing. She would not permit bladder catheterisation.

Evacuation of the rectum, for as far forward as I could reach, took nearly an hour because the faeces were very dry and hard and could only be broken down very slowly with the finger tips. At the end of this time a 12 litre enema was given, after which she received 175 mg nalorphine hydrobromide. Other treatments included, a total of 14·4 million units of a mixture of sodium, procaine and benzathine penicillin*, 40 cc Parentrovite† and 40 cc ampicillin‡.

Ten hours later she passed copious quantities of stool and urine. Ampicillin treatment was continued for a further two days, as well as local treatment of the wounds with disinfectant and a mixture of vegetable oil, oleo resins and phenoloids known as healing oils. Apart from its other properties, it is useful as a fly repellant.

The patient improved rapidly, and was eating well within a few hours.

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*Diamine. Dumex Ltd, Denmark
†Beecham
‡Penbritin. Beecham
§Cooper Healing Oil

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