

THE SURGICAL FIXATION OF CATHETERS IN THE UTERINE HORNS OF SUPEROVULATED COWS FOR THE COLLECTION OF OVA

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The surgical technique for ova collection can result in adhesions leading to impaired fertility of the donor cows. On the other hand, lower ova recovery rates have been recorded with the non-surgical technique (Baker and Jillella 1978). There are no published reports on the collection of ova by the surgical fixation of catheters in the uterine horns of donor cows. In this experiment, attempts were made to collect ova and record ovarian response from superovulated cows by surgically fixing an indwelling balloon catheter in the lumen of one or both uterine horns.

Eight normal pluriparous dairy cows were used. Four were controls and the other four were surgically implanted with silastic Foley two-way catheters (size 18 French, 30 cc) which had been modified by extending them with clear vinyl tubes of different diameters. The tubes extending the catheters were exteriorized through the para-lumbar fossae and heat-sealed and coiled in a pocket made of surgical tape. All cows were superovulated and inseminated with thawed deep-frozen semen and six days later the controls were subjected to the standard laparotomy for ova collection (Baker and Jillella 1978). Catheterised cows were flushed through the vinyl tubes and subsequently the ovaries examined by laparotomy. The results are shown in the table.

TABLE 1 Ovarian response and ova collection in control and catheterised cows

Cow No.	Ovarian Response					Ova Collected
	Right Ovary		Left Ovary		Total	
	Follicles	Ovulations	Follicles	Ovulations	Ovulations	
Catheterised Cows						
1	0	5	3	0	5	nil
2	1 cysts	1	0	3	4	nil
3	0	3	2 cysts	2	5	nil
4	2 cysts	1	1 cysts	1	2	nil
				Total	16	nil
Control Cows						
1	1	2	2	1	3	3
2	8	3	6	11	14	11
3	15	13	10	11	24	19
4	2	20	3	23	43	22
				Total	84	55

Although a total of 16 ovulations occurred in cows fitted with indwelling catheters, no ova were collected. On the other hand, 55 ova were recovered from 84 ovulations in the control cows. The major problems in cows fitted with catheters were reduced ovarian activity and cyst formation. Buch *et al.* (1964) suggested this could have been due to some interference with the endogenous production of LH. Failure to find ova in uterine flushings from catheterised cows could have been due either to the ova disintegrating or not reaching the uterus (Hawk *et al.* 1968).

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