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## References

1. Atad J, Bornstein J, Calderon I, Petrikovsky BM, Sorokin Y, Abramovici H. Nonpharmaceutical ripening of the unfavorable cervix and induction of labor by a novel double balloon device. Obstet Gynecol 1991;77:146–52.
2. Blumenthal PD, Ramanauskas R. Randomized trial of Dilapan and laminaria as cervical ripening agents before induction of labor. Obstet Gynecol 1990;75:365–8.

*In reply:*

As Blumenthal and Gaffikin realize, our study consisted of three different phases carried out one after the other. Hence, we could not compare one phase with the other or relate to one as a control. Nevertheless, a prospective study comparing the ripener device with $PGE_2$ gel administered through a conventional cannula is now being performed.

The reason for the use of a parametric statistical test was our intention to give the mean values in order to demonstrate the similarity between the groups. Nevertheless, in any nonparametric test suggested by Blumenthal and Gaffikin, the differences between the groups remained not significant.

We accept the remark that the interval from insertion to complete dilatation is useful to measure the effects of the ripener device. However, determination of the actual time when the woman achieves full dilatation may not be precise if she is being examined only periodically. Obviously, the delivery time is more reliable. In addition, since the same point was measured in all groups, the results were comparable. The question concerning the length of time the device remained in the cervix is important. Obviously, many devices were expelled before 12 hours had elapsed. Spontaneous expulsion occurs when a dilatation of 3 cm or more is achieved. In phase C, the mean duration of the device in the cervix was 10.6 hours in nulliparous and 9.1 hours in multiparous women. Therefore, the Atad ripening device remained in the cervix for a shorter period than the Dilapan in the study of Blumenthal and Ramanauskas.[1] There is also an advantage to the application of one device, as in our study, compared with a mean of 4.3 Dilapan devices or 9.7 Laminaria tents as in Blumenthal's investigation.

The last comment refers to Blumenthal's study. Although he did not use several applications of the Dilapan devices but rather left the devices in the cervix for 12 hours, this application method is not usually practiced. In a review on intracervical tents, it is stated:

> Dilapan should be left in situ for 2 to 4 hours. Exceeding these time limits achieves no further dilation, and the risk of sepsis, dumb-belling and entrapment increase. As the tent reaches its maximum dilation it should then be withdrawn and the cervical dilation utilized or a further tent inserted.[2]

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## References

1. Blumenthal PD, Ramanauskas R. Randomized trial of Dilapan and laminaria as cervical ripening agents before induction of labor. Obstet Gynecol 1990;75:365–8.
2. Johnson N. Intracervical tents: Usage and mode of action. Obstet Gynecol Surv 1989;44:410–20.

# IPSILATERAL VERSUS CONTRALATERAL OVARY SELECTION OF DOMINANT FOLLICLE IN SUCCEEDING CYCLE

*To the Editor:*

I read the paper by Check et al, "Ipsilateral versus contralateral ovary selection of dominant follicle in succeeding cycle" (OBSTET GYNECOL 1991;77:247–9), with the realization that ultrasound appears to be a potentially effective noninvasive tool to determine whether ovulation displays an alternating pattern between both ovaries in successive cycles or if selection of the ovulating ovary represents a phenomenon determined randomly during each cycle. Unfortunately,

data vital to answering this question are not included in the paper. The authors attempt to resolve the issue of selection of the side of ovulation without providing salient data regarding cycle characteristics; in the absence of this information, the conclusion reached has limited value. Furthermore, the reference cited by the authors to studies carried out in the rhesus monkey in our laboratory,[1] which provide the basis for this concern, is quoted erroneously. In essence, statistical analysis of data in our paper indicated that side of ovulation, as determined by serial laparotomy, was consistently related to cycle length. In cycles with a preovulatory phase approximating 14 days in length, ovulation tended to occur in the ovary contralateral to that which had ovulated in the previous cycle. Only in instances in which the follicular phase of a given cycle was prolonged did the side of ovulation appear to occur randomly. The differentiating feature between 28–30-day cycles and those with a prolonged follicular phase is that in the latter, a longer interval elapses from the time the corpus luteum regresses to the point at which the next ovulation occurs. The presence or absence of residual local hormonal activity within the corpus luteum of the preceding cycle may serve as the specific factor regulating which ovary provides the follicle for ovulation in the subsequent cycle. The authors' conclusion is invalid because the study fails to consider cycle length as a potential determinant of ovarian dominance in any given cycle. The concept of alternation of ovulation could be supported or disproved if the authors' data were correlated with length of the preovulatory phase in each cycle studied.

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## *Reference*

1. Wallach EE, Virutamasen P, Wright KH. Menstrual cycle characteristics and side of ovulation in the rhesus monkey. Fertil Steril 1973;24:715–21.

*In reply:*

Although Wallach states "Unfortunately, data vital to answering this question are not included in the paper" and "in the absence of this information, the conclusion reached has limited value," he does not clearly state what vital data are missing. Indeed, we do describe the nature of the infertility problems in the 92 consecutive women and state the criteria for eliminating 23 couples from the study and data analysis; we also include the causes of infertility in the remaining 69 couples. I can only surmise from the conclusions of Wallach's previous manuscript[1] that he is referring to the fact that our data were not analyzed according to the length of the follicular phase.

According to Wallach, our reference to his article[1] "is quoted erroneously." The sentence in question states: "However, there are other reports that question the alternating ovulation theory, favoring ipsilateral,[6] random,[7,8] or right-sided ovulation,[9]" with the Wallach et al citation being reference 7. The first paragraph of the discussion in his manuscript opens: "Although the present observations confirm the general principle that no consistent pattern for ovulation sequence occurs in the rhesus monkey. . . ." It is perhaps for this reason that other authors have also included the same manuscript (referenced by Wallach et al) as evidence for random ovulation. For example, Gougeon and Lefevre[2] alluded to "Wallach, Virutamasen and Wright (1973) and Clark, Dierschke and Wolf (1978) who reported that ovulation occurred by chance in either ovary, uninfluenced by the side of ovulation in the previous cycle in the rhesus monkey."

We agree that in referencing the Wallach manuscript precisely, we should also have included the statement that only "with a long preovulatory phase, ovulation tended to occur at random from the same or from the contralateral ovary." However, since the study included only 16 monkeys in 183 cycles, we felt that the data were not sufficient to warrant a firm conclusion regarding the length of the follicular phase as the determinant of the side of ovulation for the succeeding cycles, nor to speculate as to why short, long, or normal follicular lengths may lead to different patterns. Instead, our inclusion of their manuscript was based on their overall findings which, as they also stated, "confirm the general principle that no consistent pattern for ovulation sequence occurs in the rhesus monkey."

That is not to say that we have any information at present to refute the statement that follicular phase length in humans may influence side of ovulation in the next cycle. We will indeed reanalyze our data in 69 humans in 572 natural cycles to see if any such pattern can be found. However, because of the editor's request for a quick response to this letter I am sending this reply immediately, but without these data.

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## *References*

1. Wallach EE, Virutamasen P, Wright KH. Menstrual cycle characteristics and side of ovulation in the rhesus monkey. Fertil Steril 1973;24:715–21.
2. Gougeon A, Lefevre B. Histological evidence of alternating ovulation in women. J Reprod Fertil 1984;70:7–13.