

TABLE VII.—RESULT OF SIMULTANEOUS MULTIFACTOR* RANDOM MATCHING OF WOMEN USING THE DIAPHRAGM AND WOMEN USING CONTRACEPTIVE ORAL STEROIDS LONGER THAN 1 YEAR

Match ratio diaphragm/ Steroid user	Number of women successfully matched	Number of pairs	Number of pos. pairs†	Diaphragm pos. pairs/Steroid pos. pairs‡		
				Expected	Observed	Critical values for 5% significance level
				17:18 or 18:17	12:23	12:23, 23:12
1:1	4,702	2,351	35			
				Diaph. pos. triplets/Steroid pos. triplets‡		
				Expected	Observed	Critical values for 5% significance level
1:2	5,493	1,831	52	17:35 or 18:34	9:43	11:41, 24:28
				Diaphragm pos. quads/Steroid pos. quads‡		
				Expected	Observed	Critical values for 5% significance level
1:3	5,884	1,471	58	14:44 or 15:43	8:50	9:49, 21:37

* Age, ethnic group, age at first pregnancy, number of live births, and economic status were all matched simultaneously.
† Positive pairs, triplets, or quadruplets refers to a matched group of women that includes one with carcinoma in situ. In two separate instances, two women with carcinoma in situ fell into one quadruplet; in both cases the two women were steroid users and each quadruplet was counted as one.
‡ Diaphragm positive pairs, triplets, or quadruplets refers to matched groups in which the patient with carcinoma in situ was using a diaphragm; steroid positive pairs, triplets or quadruplets refers to matched groups in which the patient with carcinoma in situ used steroids.

It is obviously desirable to correct simultaneously for as many of the known factors influencing the prevalence of this disease as is possible, particularly because these factors are themselves interrelated in varying ways. This was done by the method of vector assignments to each patient, as already described, randomly matching individual patients with identical vectors by computer. As in the previous tables, the women who are matched have all been using their respective contraceptive methods for a minimum of one year. Again, it must be emphasized that the prevalence rates of carcinoma in situ are determined by the number of women with the disease who had cytological evidence of it on entering the study, and subsequent histological confirmation by cervical biopsy or conization. The results of these matched comparisons are indicated in Table VII, for ratios of diaphragm users to steroid users of 1:1, 1:2, and 1:3.

The three different ratios were investigated because the number of women from each group that can be matched varies according to the ratio. The overall number of women using steroids longer than one year is nearly twice the number using a diaphragm for a similar minimum period, hence the 1:2 ratio seems most reasonable. The diaphragm users, however, tend to be older than the women using steroids (Dubrow *et al.*, 1969), and many of the older women using diaphragms and younger women using steroids cannot be matched at a 1:2 ratio. Matching at the additional ratio of 1:1 included more of the older women using diaphragms; and matching at a ratio of 1:3 included more of the younger women using steroids (Table VIII). At all ratios a consistently higher prevalence rate for cervical carcinoma in situ was found among the steroid users (Table VII).

TABLE VIII.—VARIATION IN AGE OF MATCHED POPULATIONS OF DIAPHRAGM USERS AND STEROID USERS ACCORDING TO THE MATCH RATIO (SEE TABLE VII)

Match ratio diaphragm/steroid user	Number of women in each age group successfully matched					Total
	Age (years)					
	<20	21-25	26-30	31-35	36+	
1 : 1-----	48	682	1, 270	1, 358	1, 344	4, 702
1 : 2-----	63	1, 008	1, 779	1, 632	1, 011	5, 493
1 : 3-----	64	1, 280	2, 068	1, 608	864	5, 884

¹ Median age.
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