

Influence of the third generation pill controversy on prescriptions for oral contraceptives among first time users: population based study

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Women taking oral contraceptives containing gestodene or desogestrel (the so called third generation oral contraceptives) have a higher risk of venous thrombosis than women taking a second generation pill.¹ After the first publication on the subject, in 1995,² the discussion in Dutch medical journals was conservative; prescribing physicians were advised to not alarm women who did not have a risk of deep vein thrombosis, be cautious in the prescribing of third generation oral contraceptives to young women who start taking the oral contraceptive pill, and encourage women at risk of deep vein thrombosis to change from taking a third generation pill to taking a second generation pill.³⁻⁴ Many experts, mainly epidemiologists and clinical pharmacologists, have participated in the debate about the safety of third generation pills.⁵ But what do prescribing physicians think and do? Our aim was to determine whether this controversy has resulted in a change in the proportion of women prescribed a third generation oral contraceptive among first time users of any oral contraceptive since 1995.

Participants, methods, and results

We used pharmacy dispensing data from the Inter-Action database (a general prescription drugs database) in the northern Netherlands. In 2000, the database contained prescriptions from a population of approximately 37 000 women aged 15-44, and 224 prescribers (general practitioners and outpatient specialists). We selected all prescriptions for oral contraceptives from 1 January 1994 to 31 December 2000. First time users of oral contraceptives were defined as women who, according to the database, either were prescribed any oral contraceptive for the first time or who had not been prescribed an oral contraceptive for at least one year. Hence, 1994 was used as a washout period. We calculated for first time users of oral contraceptives the proportion of women per year receiving a third generation oral contraceptive (1995 to 2000). To study a change in the proportion, we used SPSS version 10 to calculate χ^2 tests for linear trend after stratification by age (<20, 20-24, 25-29, 30-34, 35-39, and ≥ 40 years).

The prevalence of women aged 15-44 taking the pill was stable from 1995 to 2000 (around 54%) (table). In 1995, the proportion of first time oral contraceptive users taking a third generation pill was 73% for the youngest age group (15-20 years) and 65% for the women aged 20-24. For all other age groups, except for 30-34, the proportions were also above 50%, indicating that more than half of the first time users received a third generation oral contraceptive. In 1996, the first year after the pill scare, the proportions decreased to below 50% for all age groups. The change was most evident in women younger than 20; for these users the percentage of all first time users prescribed a third generation oral contraceptive decreased from 73% in 1995 to 11% in 2000.

Comment

The number of women prescribed the third generation pill decreased dramatically after the pill scare in 1995; the decrease was most notable for women under 25. The percentage of women prescribed a third generation oral contraceptive continued to decline over the following six years.

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Proportion of women taking a third generation oral contraceptive among first time users of oral contraceptives. Results are numbers (percentage)

	1995	1996	1997	1998	1999	2000	P value for linear trend
Women aged 15-44 taking oral contraceptives	14 862/27 522 (54.0)	15 914/29 579 (53.8)	20 529/37 393 (54.9)	20 417/37 810 (54.0)	20 201/37 548 (53.8)	20 086/37 615 (53.4)	
Age of first time users (years):							
15-20	166/227 (73)	202/568 (36)	202/604 (33)	202/702 (29)	154/733 (21)	80/760 (11)	<0.001
20-24	129/200 (65)	104/237 (44)	79/202 (39)	94/262 (36)	60/225 (27)	49/220 (22)	<0.001
25-29	141/258 (55)	113/279 (41)	75/189 (40)	83/255 (33)	51/199 (26)	39/147 (27)	<0.001
30-34	102/222 (46)	85/261 (33)	68/217 (31)	78/229 (34)	55/196 (28)	54/163 (33)	0.006
35-39	71/138 (51)	61/182 (34)	37/150 (25)	50/210 (24)	55/193 (28)	28/153 (18)	<0.001
40-44	58/95 (61)	58/158 (37)	52/172 (30)	36/184 (20)	33/168 (20)	26/163 (16)	<0.001
Total	1140 (59)	1685 (37)	1534 (33)	1842 (30)	1714 (24)	1606 (17)	<0.001