

Hormonal contraception and cerebral haemorrhage

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Material

Inclusion

Women 15-49 years at any time 2001-2012

Exclusions: Previous CaVD, cancer,
hysterectomy, bilat. Oophorectomy

Temporary exclusions: Pregnancy, ovarian
stimulation

Censoring: Emigration, death, end point

Methods

National Health of Registry (>1977)

Diagnoses SAH, ICH
Previous CaVD/canc.
Pregnancies, surgery

Registry of Medicinal products (>1995):

OC use (>1995)
Medication against
BP \uparrow , DM, Hyperchol.

1995



2001



2012

1,5 million women

Cause of Deaths Registry (>1977)

Lethal events

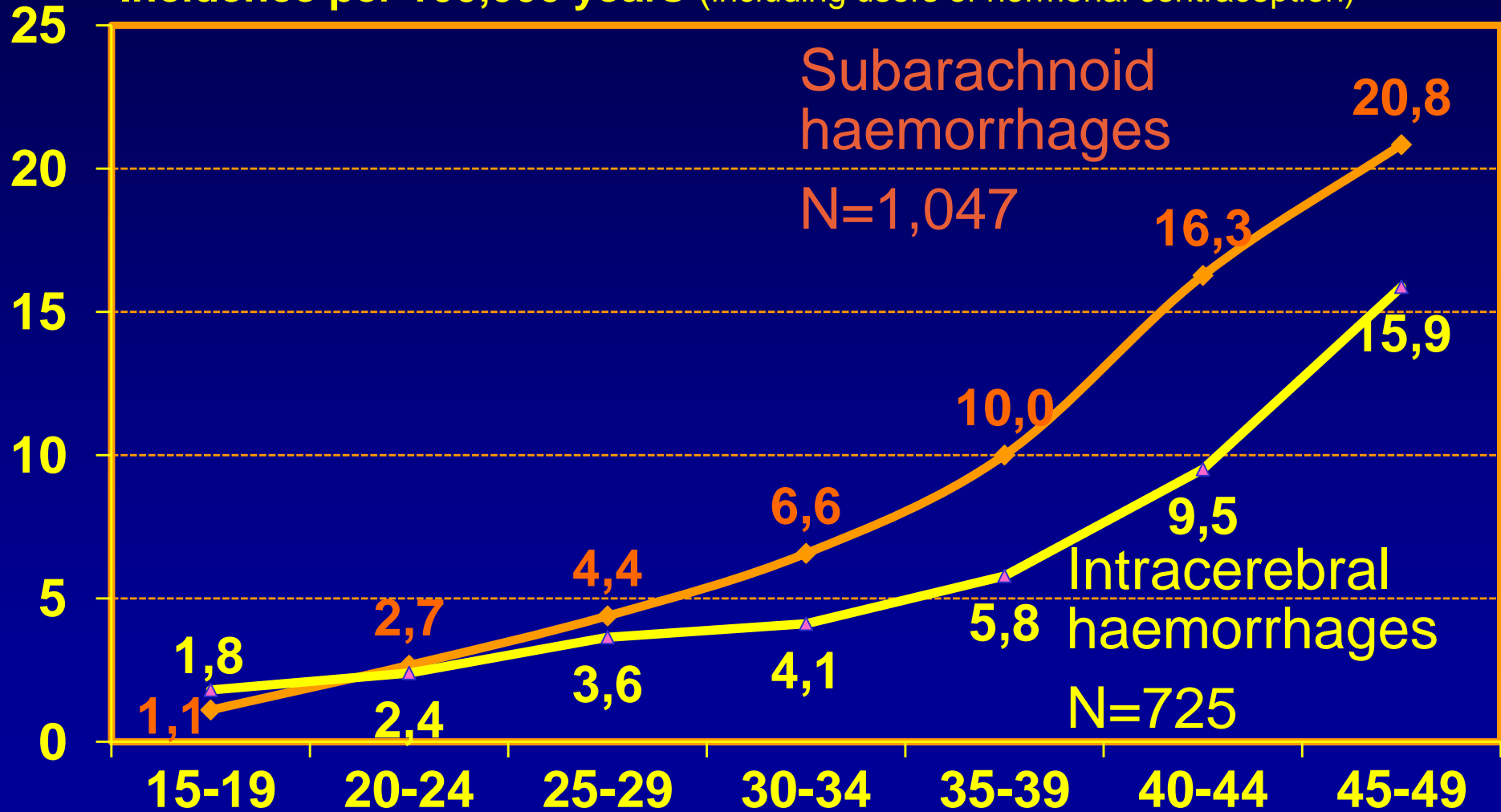
Statistics Denmark

PIN-codes, education
vital status, emigration

Cerebral haemorrhages in DK 2001-2012

Pregnant and puerperal women excluded

Incidence per 100,000 years (including users of hormonal contraception)



Results

	Women-years	SAH	ICH
Non users	7,058,523	736	515
NETA 30	29,491	1	1
LNG 30-40	305,171	31	24
NGM 35	350,605	30	16
DSG 30	216,887	27	12
GSD 30	844,455	71	49
DRSP 30	358,877	16	9
CPA 30	162,195	12	11

Results

	Women-years	SAH	ICH
DSG 20	652,203	40	21
GSD 20	664,697	22	22
DRSP 20	63,589	2	1
POP	60,048	7	5
DSG only	58,356	6	4
Implant	38,700	3	0
LNG-IUS	343,407	28	28
Total	11,308,837	1,045	725

Hormonal contraception & SAH

Reference group: non-users

ug EE	Neta	Lng	NGM	Deso	Gest	Drsp	CPA
50	1.6 0.2-11.3	2.8 1.4-5.7	na	1.3 ← Vaginal ring 0.5-3.5			na
30-40	0.5 0.1-3.7	1.2 0.8-1.7	1.6 1.1-2.3	1.8 1.2-2.6	1.3 1.0-1.7	1.0 0.6-1.7	1.6 0.9-2.8
20	na	na	na	1.4 1.0-2.0	0.9 0.6-1.4	1.1 0.3-4.3	na
POP	1.2 0.6-2.5			1.5 0.7-3.3			
Lng-IUS		0.7 0.5-1.1		1.7 0.5-5.1		Implant	

Conclusion: Increased risk with 3rd/30EE

Hormonal contraception & ICH

Reference group: non-users

ug EE	Neta	Lng	NGM	Deso	Gest	Drsp	CPA
50	2.3 0.3-16.7	2.7 1.1-6.4	na	0.4 ← Vaginal ring 0.1-2.9			na
30-40	0.7 0.1-5.2	1.3 0.9-2.0	1.1 0.7-1.9	1.2 0.7-2.0	1.3 1.0-1.8	0.7 0.4-1.4	1.9 1.0-3.4
20	na	na	na	0.9 0.6-1.5	1.0 0.7-1.6	0.6 0.1-4.0	na
POP	1.3 0.5-3.0			1.4 0.5-3.6			
Lng-IUS		1.1 0.7-1.6		na	Implant		

Conclusion: No increased risk of ICH

Hormonal contraception and cerebral haemorrhages

Thanks for your attention

www.lidegaard.dk/slides

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Conflicts of interest: The primary investigator has been an expert witness in a legal process in USA in 2011 and 2012.
