

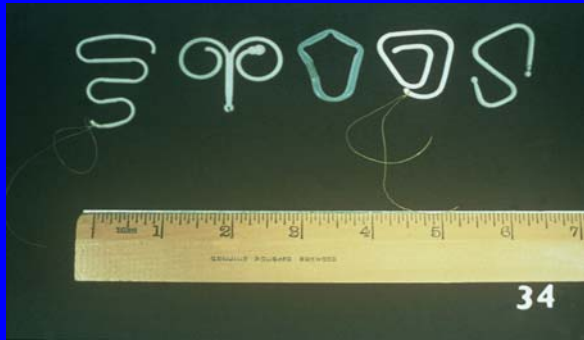
D. Mansour

From First Mirena to Consecutive Use

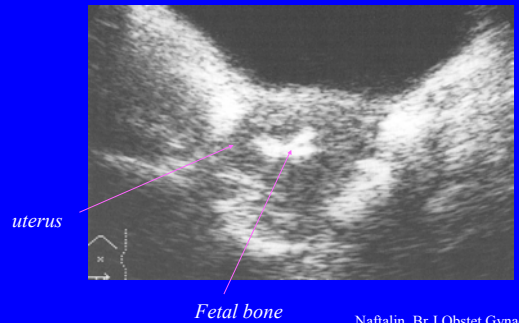
From first Mirena to consecutive use

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Plastic IUDs



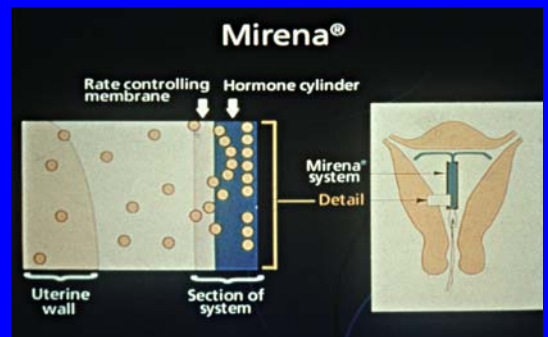
Bone of Contention



Copper Devices Available in 2003



Hormonal Intrauterine System



Use of Mirena World-wide

- ◆ Estimated world-wide usage
 - 3 million women
 - 312,228 women in UK (2.52% of women aged 16-44 use Mirena)
- ◆ One million Mirena fitted in 2002
 - 792,000 in Europe

Schering, data on file

Who would benefit from Mirena?

- ◆ Nulliparous women?

IUD/Mirena for Nullips?

- Growing evidence that in mutually monogamous couples, without children, the IUD/IUS is a contraceptive option
 - No increased risk of infection
 - No increased risk of pain
 - No increased risk of fertility problems

Duenas et al. Contraception 1996;53:23-24



What about pelvic infection?

- ◆ Infection rate 3.4 per 100 woman years for Nova-T 200
- ◆ Infection rate 0.4 per 100 woman years for Mirena
- ◆ Approx. 6 fold increase risk of pelvic infection in first 20 days therefore pre-existing infection important

Andersson et al. Contraception 1994;49:56-72

Farley et al. Lancet 1992;339:785-788

Pelvic infection in different age groups

Years	5 Year Cumulative Gross Rates		
	Nova T 200	Mirena	P
<=25	5.6	0.3	**
26-30	3.0	1.4	
31-35	1.4	0.7	
>=36	0	0.3	
Total	2.2	0.8	**

Andersson et al, Contraception 1993

Who would benefit from Mirena?

- ◆ Nulliparous women?
- ◆ Women following abortion?

Mirena and Abortion

- ◆ Can be fitted at time of first trimester abortion
 - Higher expulsion rate if mid-trimester
Grimes, Cochrane Data Base, 2001
- ◆ Expulsion rate of IUDs following surgical abortion
 - Immediate fitting 3.2%
 - Interval fitting (2 weeks) 2.3%
El-Tagy, Contraception 2003

Interval and Post-abortion insertion

	Nova T 200		Mirena	
	Interval (n=436)	Post (n=133)	Interval (n=933)	Post (n=305)
Pregnancy	2.4	9.4	0.2	0
Expulsion	3.8	11.9	4.9	10.1

Luukkainen, to be published

Mirena and Abortion

- ◆ Bleeding
 - Mirena users have better bleeding patterns (fewer days bleeding in first 2 months) compared to copper IUD
Suvisaari, Contraception 1996
- ◆ Infection
 - No increased risk of infection if fitted at time of surgical abortion
El-Tagy, Contraception 2003
- ◆ Fitting following medical abortion
 - Best at 2 weeks following medical abortion

Who would benefit from Mirena?

- ◆ Nulliparous women?
- ◆ Women following abortion?
- ◆ Women following childbirth?

Lactation and Progestogen only Methods

- ◆ Mirena can be fitted in sixth postpartum week
 - Reduces initial irregular, prolonged bleeding
 - Worries about neonatal liver metabolism of progestogen
- ◆ Very few studies look at giving progestogen only methods to lactating women within 6 weeks of birth

Kennedy et al 1997;55:347-350 Contraception

Mirena and Breast feeding

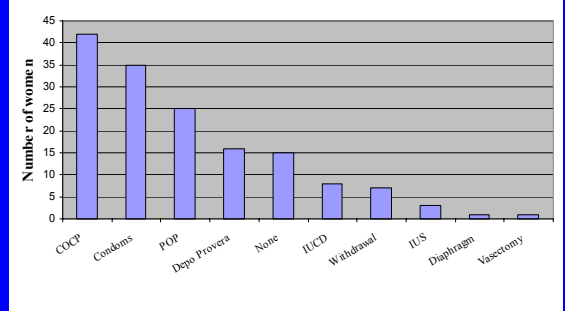
- ◆ Study looking at women with either LNG-IUS releasing 10mcg/day, 30 mcg/day or with a Nova - T 200 IUD:
 - Total LNG excreted in breast milk - 0.1% of daily dose
 - No difference noted in breast milk constituents or quantity
 - Continuation of breast feeding and weaning times were similar

Heikkila et al Contraception 1982

Who would benefit from Mirena?

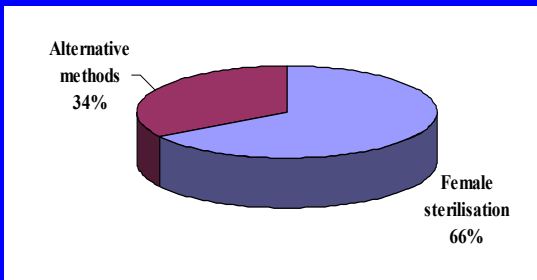
- ◆ Nulliparous women?
- ◆ Women following abortion?
- ◆ Women following childbirth?
- ◆ Women requesting an alternative to sterilisation?

Contraceptive method used at the time of sterilisation counselling appointment



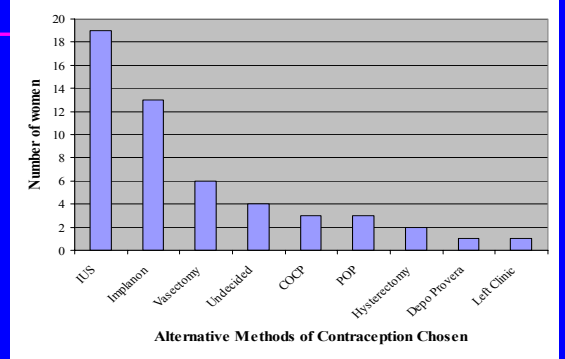
Mattinson & Mansour, J Fam Plann 2003

Percentage of women who chose sterilisation following counselling



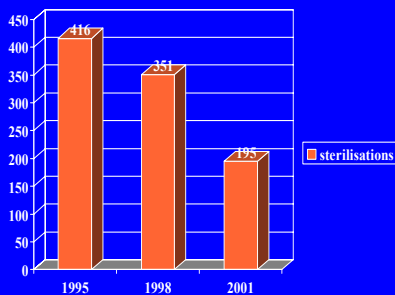
Mattinson & Mansour, J Fam Plann 2003

Alternative methods of contraception chosen after counselling



Mattinson & Mansour, J Fam Plann 2003

Female Sterilisation in Newcastle



Mattinson & Mansour, J Fam Plann 2003

Efficacy of Intra-uterine Contraceptives

Intrauterine Device **Cumulative Pregnancy Rate at 3 years**

Flexi-T	2.5
Gynefix	0.5
Gyne T 380/T-Safe	1.5
Mirena	1.1
Multiload Cu375	1.9
Nova-T 200	6.2
Nova-T 380	2.0

Pregnancy with Mirena vv IUD

Cumulative pregnancy rates at 5 years

Years	Nova T 200	Mirena	P
<=25	14.9	0	***
26-30	6.9	0.4	***
31-35	4.0	0.5	***
>=36	2.8	0.9	***
Total	5.9	0.5	***

Expulsion of Intra-uterine Contraception

Intrauterine Device	Expulsion rates in first year
Flexi-T	3.6
Gynefix	0.6-8
Gyne T 380/T-Safe	3.3-7.1
Mirena	6.4
Multiload Cu375	4.1-9.4
Nova-T 200/380	1.6-9.2

What to do if IUD/Mirena fails?

Where the IUD fails, leaving it in situ:

- ◆ results in a higher pregnancy loss (incidence of spontaneous abortion approximately 3 times as great if the IUD is left in place).

Tatum et al. Am J Obstet Gynecol 1976;126:869-879

If Mirena fails

- ◆ an abortion should be considered owing to the local release of levonorgestrel
 - over 50 cases of pregnancy with Mirena in-situ and no associated effects reported

What is the risk of ectopic pregnancy?

- When a copper IUD or Mirena fails about 20% of pregnancies will be ectopic
 - 0.25 per 100 woman years for Nova T 200
 - 0.02 per 100 woman years for Mirena
 - 1.2-1.6 per 100 woman years for women not using contraception

Andersson et al, Contraception 1993

Acceptability of Intra-uterine Contraceptives

Type of IUD/IUS	Continuation at 3 years		
	Finland	Newcastle	Austria
Gynefix	71.9-81.2 %	57%	
Gyne T 380	50.4%	70%	
Mirena	82%	75%	90.3%
Multiload Cu 375	57.8%	69%	
Nova-T 200	50.0%	66%	
Nova-T 380	47%		

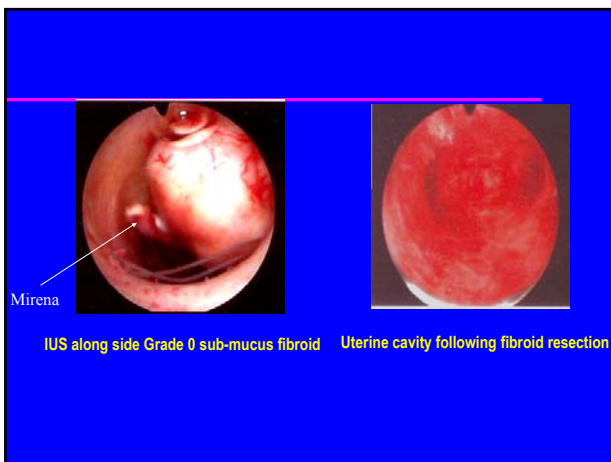
- ◆ Mirena and IUDs have lowest continuation rates in young and highest in 40s

Bleeding patterns in Mirena users

- 20% of Mirena users experience prolonged bleeding (>8 days) in first month
 - 3% have prolonged bleeding at month 3
 - 17% of women having amenorrhoea (at least 3 months duration) at one year

Data on file, Schering Health Care

- May take about 6 months for bleeding to settle if women have heavy periods



Ovarian activity and Mirena

Mean plasma oestradiol and LNG concentrations in menstruating and amenorrhoeic women with IUS

	Oestradiol	LNG
Menstruating	381.3 (n=66)	560.6 (n=62)
Amenorrhoeic	487.0 (n=20)	575.7 (n=20)

Luukkainen et al. 1990

Acceptability of amenorrhea associated with contraception

- ◆ Varies with culture, religion, women's attitudes towards menstruation
- ◆ In late 1970s:
 - Most women preferred a monthly bleed as
 - » amenorrhea was unnatural
 - » it was an outlet for 'bad blood'
 - » it was felt to be a cleansing process
 - 53% of women in UK and 91% Pakistan would not accept amenorrhea

WHO Task Force, Stud Fam Plann 1981

Acceptability of amenorrhea associated with contraception

- ◆ In 2003 the following women still want a monthly bleed
 - 30% of white South Africans
 - 33% of Scottish women
 - 71% of Nigerian women
- ◆ What has changed?
 - Passage of time
 - More contraceptives available giving oligo/amenorrhea
 - 53% of women in late 1970s vs 25% in 2003 would not accept a method that induces amenorrhea

Glasier, Contraception 2003

Long Term Use of Mirena

- ◆ Swedish data > 13 years of use (3 consecutive IUS)

End of 5 years:

70% reported regular, scanty bleeding
26% amenorrhoea
4% irregular bleeding

End of 10 years:

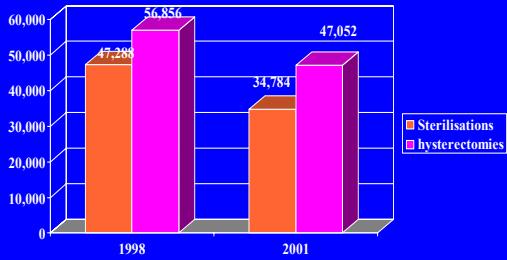
60% amenorrhoea
28% regular scanty bleeding
12% irregular bleeding

Spotting did not occur after second and third insertion.

Advantages of Mirena

- ◆ Reduced menstruation/period pain
- ◆ Licence for treatment of primary menorrhagia
- ◆ Reduced risk of pelvic infection
- ◆ Reduction in fibroid size
- ◆ Symptomatic improvement in women with endometriosis
- ◆ Reduced blood loss in women with adenomyosis
- ◆ Reduction in endometrial hyperplasia/cancer
- ◆ Useful contraceptive for women taking tamoxifen

Changing Face of Gynaecology



Effects of good counselling

- Women will:
 - make a truly informed choice
 - be more confident with her treatment
 - know what to expect
 - be able to tolerate minor side effects
- Result:
 - better compliance
 - better provider/patient relationship

