

What does longterm follow-up of adolescents with dysmenorrhoea tell us about endometriosis in young women?



B Knox¹, Y Chen^{2,3}, M Abu Bakar², SR Grover^{2,3}

1. Royal Women's Hospital, Parkville, 2. The University of Melbourne, Parkville, 3. Royal Children's Hospital, Parkville
contact: benita.knox@gmail.com

Background

Dysmenorrhoea is the most common adolescent gynaecological presentation (1). No known longterm follow-up studies of adolescents with dysmenorrhoea to analyse endometriosis in this population.

Current understanding of endometriosis

50-70% of adolescents with dysmenorrhoea unresponsive to OCP and NSAIDs will be found to have endometriosis (2).

Women with endometriosis often have an 8 to 10 year history of pain (2).

40-60% of women with dysmenorrhoea are estimated to have endometriosis (3).

30-50% of women with endometriosis are infertile (4).

Methods

Retrospective analysis of initial cohort of adolescents referred to a tertiary centre with dysmenorrhoea. Follow-up study of this cohort at 4-14 years. Self-reported questionnaires on menstrual symptoms and their management. Review of surgical notes for operative findings.

Study findings

Initial study

154 adolescents. Mean age: 15.7 years. 65 (42%) managed dysmenorrhoea with continuous OCP and NSAIDs. 57 of whom (88%) were satisfied with treatment.

→ 12.5% (or 1 of the 8) adolescent participants who had dysmenorrhoea unresponsive to OCP and NSAIDs were found to have endometriosis.

Follow-up study

70 young women (90% follow-up rate). Mean follow-up interval: 10.24 years. Mean age: 26.0 years. 13 of 70, 19% of young women in the follow-up study had been diagnosed with endometriosis.

→ 60% (12 of 20) young women with ongoing dysmenorrhoea at follow-up who had had laparoscopy were found to have endometriosis. 17% (12 of 70) of all at follow-up had an endometriosis diagnosis.

All cases of endometriosis diagnosed were mild.

→ 1 of the 13 young women with endometriosis was trying >1 year before getting pregnant. 3 other young women in the study with endometriosis had successful pregnancies without significant fertility issues.

Features as an adolescent with dysmenorrhoea associated with diagnosis of endometriosis as an adult:

Positive association:

- Use of oral contraceptive pill (OCP) at any time (p=0.047)
- Feeling improved with treatment (p=0.001)

Negative association:

- Happy with treatment (p=0.005)

No significant association:

- Age of menarche
- Reported distress with pain
- Intermenstrual pain
- No of days of dysmenorrhoea >2
- Associated symptoms
- Missing school as an adolescent
- Number of visits to gynaecologist

Figure 1. Pain score with menstruation at follow-up with rates of laparoscopy and endometriosis finding

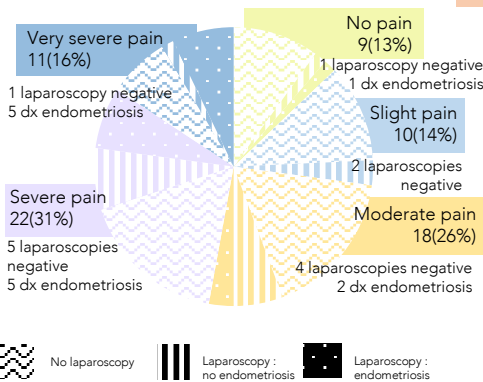


Table 1. Features as an adult associated with diagnosis of endometriosis as compared with no endometriosis on laparoscopy or no laparoscopy:

Features as an adult	No laparoscopy (n=46)	No endometriosis (n=11)	Laparoscopy (n=24)	p=
Severe/very severe pain	18 (39%)	5 (45%)	10 (77%)	0.003
4 or more days of pain	12 (26%)	3 (27%)	6 (46%)	0.03
Not satisfied with treatment	14 (30%)	5 (45%)	8 (62%)	0.008
Missed work/study	13 (28%)	3 (27%)	5 (38%)	NS
Missing social/sporting activities	21 (44%)	5 (45%)	9 (69%)	0.03
Dyschezia	6 (13%)	3 (27%)	8 (62%)	0.0002
Dyspareunia	11 (24%)	2 (11%)	10 (77%)	0.001
Intermenstrual pain	17 (37%)	4 (36%)	11 (85%)	0.0005

Discussion

It is possible with conservative management to achieve satisfactory outcomes and symptom improvement for the majority of adolescents with dysmenorrhoea. We found lower rates of endometriosis in adolescents that otherwise reported (2). Despite a long history of dysmenorrhoea, only minimal/mild endometriosis was found at rates in the adults no higher than general reports on endometriosis (3). Avoiding invasive surgery is significant for not just the associated risks but also given that studies have demonstrated that early first surgery is a

risk factor for further surgery (5). Interestingly, others (6) have seen a positive association with OCP use and deep infiltrating endometriosis (DIE) finding in adults, with higher pain scores too. However, there were no identified DIE cases in our study. There was also no impact on fertility in this population however conclusions are limited by the small sample size. This study highlights the need for further awareness and research in this area, particularly looking more broadly at persistent pelvic pain.