



دانشگاه علوم پزشکی
و خدمات بهداشتی درمانی تهران

THE PREVALENCE OF ENDOMETRIOSIS IN UNEXPLAINED INFERTILITY: A SYSTEMATIC REVIEW

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INTRODUCTION

- Infertility: Inability to achieve pregnancy ≥ 12 months
- 48.5 million couples
- 15–30% \rightarrow Unexplained infertility \rightarrow Role of peritoneal factors
- Improvements in imaging and ART \rightarrow Endometriosis or tubal disease
- Ultrasound and MRI \rightarrow Operator dependent
- Declining rates of diagnostic laparoscopy \rightarrow missed diagnosis of endometriosis



- Aim → to investigate the prevalence of endometriosis in patients with unexplained infertility undergoing diagnostic laparoscopy in the current era of improved imaging and ART.



METHODS

- Diagnostic laparoscopy, in couples with unexplained infertility ≥ 12 months (normal semen analysis, in order to rule out male factor infertility; ovulatory cycles)
- Extracted data: mean age; primary or secondary infertility; duration of infertility; prior investigations; previous interventions; and presence of pain symptoms



RESULTS

- 1957 infertile women → 250 control group + 1707 undergo laparoscopy



PRIMARY OUTCOME

- Endometriosis → 44% of cases
- Minimal or mild → 74%, moderate or severe : 25%
- prevalence of tubal factors → 20%

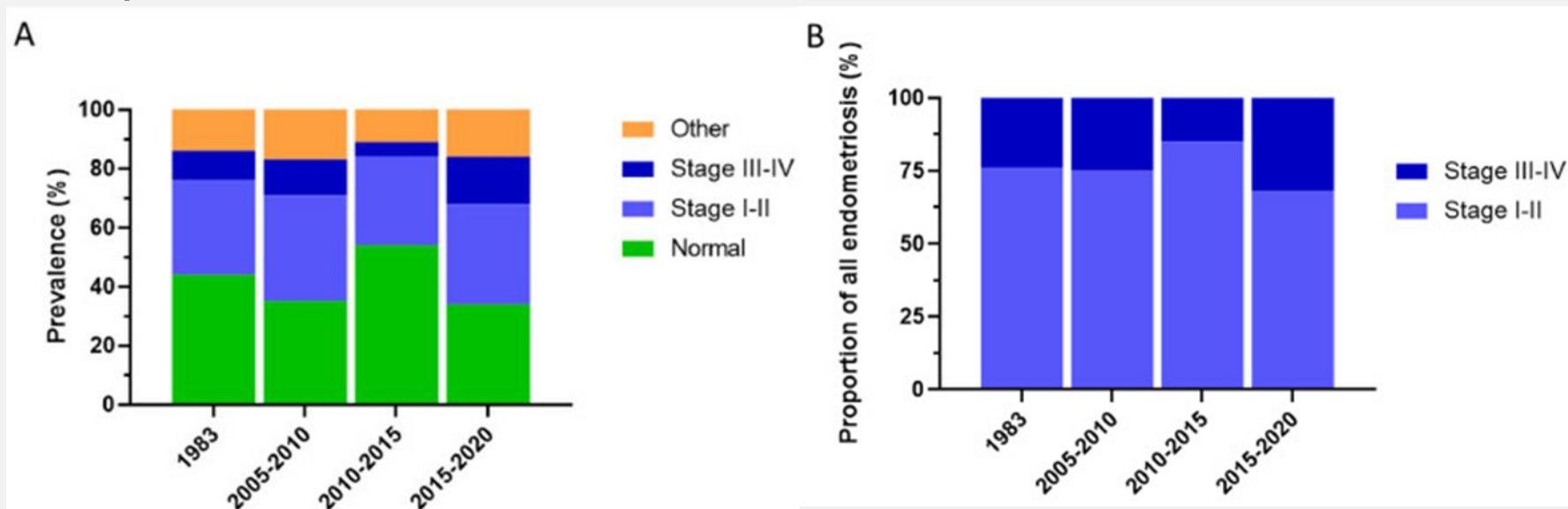


Figure 2 Prevalence of findings at laparoscopy (A) and percentage of total number of patients with endometriosis presenting with stage I–II or stage III–IV (B) according to study publication dates, grouped in 5-year intervals.



SECONDARY OUTCOME

- Laparoscopy detected pelvic pathologies → 75% and 53% of women with and without prior fertility treatment.
- The prevalence rates → 50% and 44%
- Tubal factors → 14% and 26% of women with and without prior fertility treatment
- Adhesions → 18% and 19% of women with and without prior fertility treatment

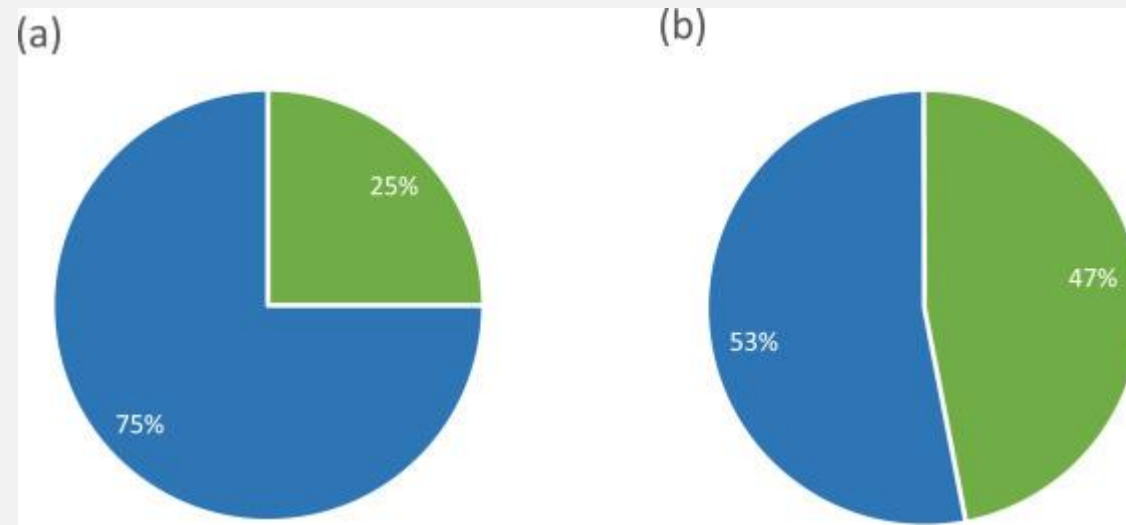


Figure 3 Influence of prior fertility treatment on the presence (blue) or absence (green) of pelvic pathology. (a) Prior treatment. (b) No prior treatment.

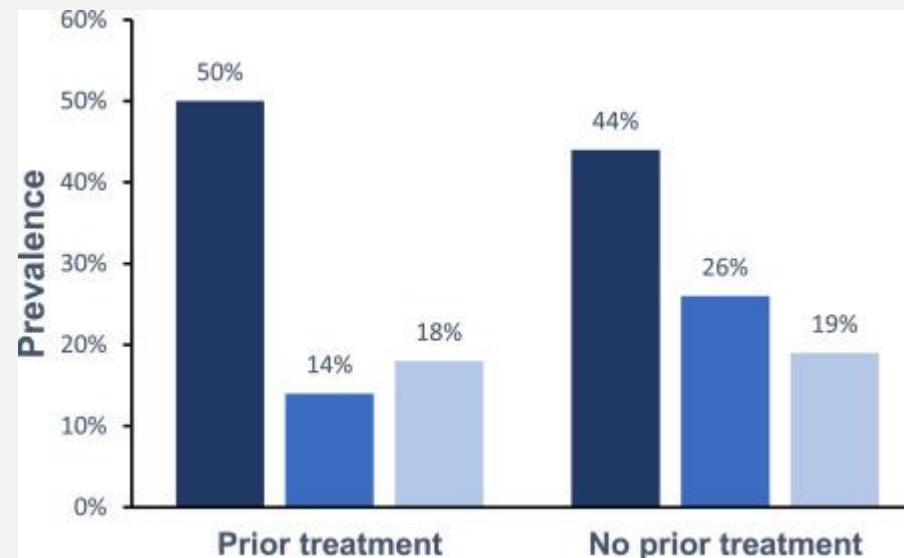


Figure 4 Influence of prior fertility treatment on the distribution of laparoscopic findings. Dark blue bars, endometriosis; mid-blue bars, tubal factors; light blue bars, adhesions.



DISCUSSION

- prevalence of laparoscopically confirmed endometriosis: 44%.
- Tubal factors and adhesions → 20% and 16%
- Normal pelvis → 42%
- Laparoscopy identified pelvic pathologies → 75% of women with prior fertility treatment and 53% of women without prior fertility treatment
- Prevalence of tubal factors → 50% lower in women with prior fertility treatment (because of IVF before laparoscopy)



- No difference in the prevalence of endometriosis over time
- The greatest impact of improved imaging → diagnosis of deep endometriosis
- miRNA for non-invasive diagnosis of endometriosis
- Non-invasive diagnostic test for endometriosis → eliminate the 42% of negative laparoscopies



- ESHRE and ASRM guidelines:
- laparoscopy → women with abnormal HSG results or those at risk for tuboperitoneal disease
- ~~routine surgery prior to ART to improve live birth rates in women with peritoneal endometriosis~~
- Pain symptoms → laparoscopy could be considered
- Discovery of a pelvic pathology → relief from the stress and psychological impact



THANK YOU FOR YOUR ATTENTION
ANY QUESTIONS?