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The Impact of Magnetic Resonance (MR) Exposure on the Menses

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The Impact of Magnetic Resonance (MR) Exposure on the Menses

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INTRODUCTION

- Limited research exists on magnetic resonance (MR) side effects in nonpregnant women
- Case reports and occupational survey evidence report abnormal uterine bleeding (AUB) among female healthcare workers with frequent MR exposure.
- Anecdotal evidence reported online suggests possible link with AUB and MR exposure.

OBJECTIVE

- To describe gynecological symptoms after MR exposure in women with regular menstrual cycles

MATERIALS & METHODS

- Prospective single-group descriptive study of self-reported regularly menstruating women undergoing brain MRI
- Baseline questionnaire: demographic info, OBGYN history, imaging information
- Daily automated symptom survey until first day of period
- Descriptive statistics and Chi-square and Fischer exact test

RESULTS

- Subject median age of 27 with range of 19 to 34 years old
- Twelve subjects (33%) reported contraception use

	Subjects, n (%)
Total enrolled	36
Gynecologic symptoms* in first 48 hours after MR exposure**	7 (19%)
Pelvic pain or cramping in first 48 hours	6 (17%)
Spotting in first 48 hours	1 (3%)
Any gynecologic symptoms from MR exposure to start of regular menstruation**	30 (83%)

* Spotting, light/moderate/heavy bleeding, pelvic pain/cramping, menstrual clotting
** No statistical significance ($p > 0.05$) was found when comparing demographic, bleeding patterns, or MR imaging info in subjects who reported symptoms and those that did not

CONCLUSIONS

- ❑ Nearly one-fifth of patients reported gynecological symptoms, primarily cramping, within 48 hrs after MR exposure
- ❑ 83% reported any symptoms from MR exposure to start of regular menstruation, which is higher than historical comparisons
- ❑ Limitations: small sample size, no non-exposed comparison group

ABSTRACT

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