"Incidence of Incidental Intrapelvic Findings on Pelvis MR"

Kevin McGill MD, MPH¹ Antonio Westphalen MD, PhD² Gabby Joseph, PhD

University of California, San Francisco Department of Radiology, Division of Musculoskeletal Radiology¹ and Abdominal Imaging²

<u>Abstract</u>

Objectives

The American College of Radiology (ACR) recognizes the identification of incidental findings on imaging as a matter of significant importance, to the extent it has created the Incidental Findings Committee which published a series of consensus white papers on the topic. Incidental findings are occasionally identified on magnetic resonance imaging of the pelvis performed for musculoskeletal reasons; for example suspected pelvic, hip, or sacroiliac joint pathology may also demonstrate unexpected benign or malignant intrapelvic pathology. Accurate identification of incidental findings is essential to determining the appropriate next step in management and eliminating unnecessary follow up imaging. The goal of this study is to describe the frequency and type of incidental findings and follow up recommendations in musculoskeletal pelvic MRI studies performed at a tertiary/quaternary care center.

Materials/Methods

We retrospectively reviewed 589 consecutive pelvic MRI studies performed between 2016 and 2018. Only imaging studies performed on adult patients and interpreted by musculoskeletal radiologists were included. Findings were classified based on organ system.

Results

Of the 447 studies which met the inclusion criteria, 202 (45%) included incidental findings. The majority of the findings were related to the reproductive system, usually female. Although the majority of the findings were benign, 35 MRI studies included recommendations for either clinical or imaging follow up and 30 studies included intrapelvic findings which necessitated either immediate direct communication with the referring provider or an electronic alert through the dictation system to recommend either clinical and/or imaging follow up.

Conclusion

Incidental intrapelvic findings are common on musculoskeletal pelvic MRI studies. In this study, the prevalence of these findings is often closely related to sex and age of the patient. While most often benign, there were a notable number of findings which were concerning for early disease requiring follow up and/or timely notification of the referring provider.