

Advanced

Journal List > J Korean Soc Radiol > v.73(6) > 1087611

J Korean Soc Radiol. 2015 Dec;73(6):424-427. Korean.
Published online December 03, 2015. <https://doi.org/10.3348/jksr.2015.73.6.424>

Copyright © 2015 The Korean Society of Radiology

MRI Induced Second-Degree Burn in a Patient with Extremely Large Uterine Leiomyomas: A Case Report

Chul-Min Lee, MD,¹ Bo-Kyeong Kang, MD,^{✉1} Soon-Young Song, MD,¹ Byung-Hee Koh, MD,¹ Joong Sub Choi, MD,² and Won Moo Lee, MD²

¹Department of Radiology, Hanyang University Medical Center, Hanyang University College of Medicine, Seoul, Korea.

²Division of Gynecologic Oncology and Gynecologic Minimally Invasive Surgery, Department of Obstetrics and Gynecology, Hanyang University Medical Center, Hanyang University College of Medicine, Seoul, Korea.

✉Corresponding author: Bo-Kyeong Kang, MD. Department of Radiology, Hanyang University Medical Center, 222-1 Wangsimni-ro, Seongdong-gu, Seoul 04763, Korea. Tel. 82-2-2290-9164, Fax. 82-2-2293-2111, Email: msbbogri@naver.com

Received June 26, 2015; Revised August 13, 2015; Accepted August 30, 2015.

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Abstract

Burns and thermal injuries related with magnetic resonance imaging (MRI) are rare. Previous literature indicates that medical devices with cable, cosmetics or tattoo are known as risk factors for burns and thermal injuries. However, there is no report of MRI-related burns in Korea. Herein, we reported a case of deep second degree burn after MRI in a 38-year-old female patient with multiple uterine leiomyomas including some that were large and degenerated. The large uterine leiomyoma-induced protruded anterior abdominal wall in direct contact with the body coil during MRI was suspected as the cause of injury, by retrospective analysis. Therefore, awareness of MRI related thermal injury is necessary to prevent this hazard, together with extreme care during MRI.

Keywords: Burns; Magnetic Resonance Imaging; Leiomyoma, Uterine

Figures

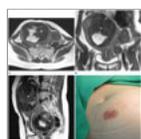


Fig. 1

A 38-year-old female patient with multiple uterine leiomyomas including one in the right anterior that was extremely large.

A-C. T2-weighted axial (**A**) and coronal (**B**), and sagittal (**C**) images show 2 extremely large degenerated subserosal type leiomyomas in the right anterior and posterior side of the uterus (asterisks) and other multiple T2-hypointense leiomyomas. The adjacent right lower anterior abdominal wall is protruded by the mass effect of the large leiomyoma.

TOOLS

 PDF Links

 ePub Link

 Download Citation

 Print

Share:   

Related articles

Diffuse Systemic Sclerosis in a Patient with Primary Biliary Cirrhosis and Autoimmune Hepatitis Overlap Syndrome: A Case Report 2020 ;32(1)

Relapsed Leprosy with Multiple Ulcerative Skin Lesions: A Case Report 2019 December;52(1)

Fabrication of complete dentures for a patient with odontogenic myxoma: A case report 2018 ;56(1)

D. Clinical photograph of the same patient. A deep 2nd degree burn is noted at the anterior abdominal wall of right lower abdomen that was protruded by the large uterine leiomyoma.

 [Click for larger image](#)  [Download as PowerPoint slide](#)

References

1. Formica D, Silvestri S. Biological effects of exposure to magnetic resonance imaging: an overview. *Biomed Eng Online* 2004;3:11.
[PubMed](#)  [Article](#) 
2. Knopp MV, Essig M, Debus J, Zabel HJ, van Kaick G. Unusual burns of the lower extremities caused by a closed conducting loop in a patient at MR imaging. *Radiology* 1996;200:572-575.
[PubMed](#)  [Article](#) 
3. Masaki F, Shuhei Y, Riko K, Yohjiro M. Iatrogenic second-degree burn caused by a catheter encased tubular braid of stainless steel during MRI. *Burns* 2007;33:1077-1079.
[PubMed](#)  [Article](#) 
4. Shellock FG, Crues JV. MR procedures: biologic effects, safety, and patient care. *Radiology* 2004;232:635-652.
[PubMed](#)  [Article](#) 
5. Franiel T, Schmidt S, Klingebiel R. First-degree burns on MRI due to nonferrous tattoos. *AJR Am J Roentgenol* 2006;187:W556.
[PubMed](#)  [Article](#) 
6. Haik J, Daniel S, Tessone A, Orenstein A, Winkler E. MRI induced fourth-degree burn in an extremity, leading to amputation. *Burns* 2009;35:294-296.
[PubMed](#)  [Article](#) 
7. Pietryga JA, Fonder MA, Rogg JM, North DL, Bercovitch LG. Invisible metallic microfiber in clothing presents unrecognized MRI risk for cutaneous burn. *AJNR Am J Neuroradiol* 2013;34:E47-E50.
[PubMed](#)  [Article](#) 
8. Dempsey MF, Condon B. Thermal injuries associated with MRI. *Clin Radiol* 2001;56:457-465.
[PubMed](#)  [Article](#) 
9. Landman A, Goldfarb S. Magnetic resonance-induced thermal burn. *Ann Emerg Med* 2008;52:308-309.
[PubMed](#)  [Article](#) 