MEMORANDUM FOR 959 CSPS MC 44E1A
ATTN: CAPT BRIAN P MURRAY

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled Sudden Onset Abdominal Pain in A 42yo Male presented at/published to Academic Academy of Emergency Medicine Conference 2017, Orlando, FL, 16-20 March 2017 in accordance with MDWI 41-108, has been approved and assigned local file #17070.

2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.

3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are a 59 MDW staff member, we can forward your request for funds to the designated Wing POC at the Chief Scientist’s Office, Ms. Alice Houy, office phone: 210-292-8029; email address: alice.houy.civ@mail.mil.

4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support
1. The author must complete page two of this form:
   a. In Section 2, add the funding source for your study (e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE); SG5 O&M; SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP); Grants, etc.)
   b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.
2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.
3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.
4. Attach a copy of your abstract, paper, poster and other supporting documentation.
5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.
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   a. Print their name, rank/grade, title, sign and date the form in the approving authority's signature block or use an electronic signature.
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8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDWPA) for review and then forward you a final letter of approval or disapproval.
9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. Note: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.
10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DTIC). See 59 MDWI 41-108, Presentation and Publication of Medical and Technical Papers, for additional information.
11. The Joint Ethics Regulation (JER) DoD 5500.07-R, Standards of Conduct, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review. To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:
   For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.
   If the sponsor of a conference or meeting is a DoD entity, an ethics review of your presentation is not required, since the DoD entity is responsible to obtain all approvals for the event.
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NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement:
"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"

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"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DOD 3216.02_AFI 40-401."

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"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."
1. TO: CLINICAL RESEARCH  
2. FROM: (Author's Name, Rank, Grade, Office Symbol)  
   Brian P. Murray, Capt, USAF, MC 44E1A  
3. GME/GHSE STUDENT:  
   X YES  NO  
4. PROTOCOL NUMBER:  
   25 Jan 2017  

5. PROTOCOL TITLE: (NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.)  
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6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED:  
   Sudden Onset Abdominal Pain in a 42yo Male  

7. FUNDING RECEIVED FOR THIS STUDY?  
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    Murray, Brian P. brian.p.murray20.mil@mail.mil  
15. DUTY PHONE/PAGER NUMBER  
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16. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.  

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<td>a. Primary/Corresponding Author</td>
<td>Brian P. Murray, DO Capt</td>
<td>959CSPS/59MDW/44E1A</td>
<td>University of Louisville Sch</td>
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<td>b. Emma Burch, MSIV</td>
<td>2LT</td>
<td>959CSPS/59MDW</td>
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<td>c. Sunthos P. Madireddi, MD</td>
<td>Capt</td>
<td>959CSPS/59MDW</td>
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<td>d. Willis Kann, MD</td>
<td>Capt</td>
<td>USAR - BAMC</td>
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17. IS A 502 ISG/JAC ETHICS REVIEW REQUIRED (JER DOD 5500.07-R)?  
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    Daniel J Sessions MD, MAJ, APD  
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   January 27, 2017  

59 MDW FORM 3039, 20160628  
PREVIOUS EDITIONS ARE OBSOLETE  
Page 2 of 3 Pages
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<th>1st ENDORSEMENT (59 MDW/SGVU Use Only)</th>
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<tr>
<td><strong>DATE RECEIVED</strong>: January 27, 2017</td>
</tr>
<tr>
<td><strong>ASSIGNED PROCESSING REQUEST FILE NUMBER</strong>: 17070</td>
</tr>
<tr>
<td><strong>DATE REVIEWED</strong>: February 09, 2017</td>
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<td><strong>DATE FORWARDED TO 502 ISG/JAC</strong></td>
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<tr>
<td><strong>AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES</strong>: NO</td>
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<td><strong>COMMENTS</strong>: APPROVED</td>
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<td><strong>PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER</strong>: Kevin Kupferer/GS13/Human Research Subject Protection Expert</td>
</tr>
<tr>
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<td><strong>COMMENTS</strong>: APPROVED (In compliance with security and policy review directives.)</td>
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<td><strong>PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER</strong>: Kevin Inuma, SSgt/E-5, 59 MDW Public Affairs</td>
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**Comments**: Single subject case study with appropriate disclaimers
A Rare Cause of Sudden Onset Abdominal Pain

Emma R. Burch MSIV, 2LT, USAF; Brian P. Murray DO Capt, USAF; MC; Sunthos P. Madireddi, MD, Capt, USAF; MC; Willis Kann MD, CAPT, USAF, MC
San Antonio Military Medical Center, Fort Sam Houston, TX

HPI

- A 42-year-old male smoker with history of hypertension and hyperlipidemia presents to the ED with 2 hours of sudden onset, persistent, severe, right-sided "kidney" pain that he describes as aching and stabbing in nature. The pain radiates into his right testicle and is exacerbated by movement. Associated symptoms include nausea and sweating. He denies recent illness, fever, palpitations, or urinary complaints. All other ROS negative.
- PMHS/HI: Umbilical Hernia Repair. Otherwise negative.

Physical Exam

- Vitals: BP 176/110, HR 85, RR 22, T 97.5, SpO2 98%. General: No acute distress
- Respiratory: no respiratory distress, normal breath sounds
- Cardiovascular: RRR, no MR/G
- Abdomen: Moderate tenderness in RLQ and at McBurney's point. No guarding, rebound, laxity, or pyleas. Bowel sounds normal
- GU: Normal male genitsis, no tenderness or swelling
- Back: Normal, no CVA tenderness

EKG/Labs

- EKG: incomplete RBBB, no prior for comparison
- White Blood Cells: WNL
- Hemoglobin: 17.3
- Lипо: 21B
- AST/ALT: 47/91
- Glucose: 106
- UA: protein, RBC
- UA
- eetate, HBC, WBC

Questions

1. What imaging is best for making the diagnosis?
2. What risk factors should be considered in making the diagnosis?

Answers

1. CT scan with contrast is the gold standard for diagnosing renal infarct.
2. Risk factors for renal infarct include: Atrial fibrillation, atherosclerosis, aneurysm, antiphospholipid syndrome, endocarditis, fibromuscular dysplasia, nephrotic syndrome, polycythemia vera

Imaging

Figure 1 demonstrates hyposthenatation of the inferior pole of the right kidney on CT abdomen with contrast.

Figure 2 is a CT angiogram demonstrating the classic striated nephrogram of a renal infarct.

Figure 3 demonstrates a pseudaneurysm of the right renal artery, which can be seen in setting of fibromuscular dysplasia.

Case Conclusion / Discussion

This patient was sent for a CT abdomen/spleen with contrast to rule out appendicitis. His appendix was found to be normal, however there was a "geographic area of hyposthenatation of the right lower pole favored to represent renal infarct". CT with contrast is considered the gold standard for diagnosing renal infarct. [1] This is fortunate as the diagnosis was made incidentally during the treatment for a different suspected pathology. Renal infarcts (RI) are uncommon, with incidence believed to be 0.007%. [2] It may also be a commonly missed diagnosis. This is due to the similarity in presentation to more common conditions like appendicitis, nephrolithiasis, and pyelonephritis.

If this patient presented with CVA tenderness or hematuria, as has been reported, [3] CT without contrast would have been performed. In the setting of acute abdominal/fanck pain where no stone is identified, the clinician should consider RI and order an additional CT with contrast. [3] Renal infarcts may be focal, multifocal, or global. They can also be unilateral or bilateral. [4]

Certain risk factors found in the past medical history make Renal Infarct more likely. The majority of renal infarcts are thrombotic, however they can also be due to vasculitis or hypercoagulability. [1] Aorto-renal vascular pathologies such as atherosclerosis, aneurysms, or fibromuscular dysplasia can lead to renal infarct. Additionally, cardiogenic emboli caused by conditions such as aortic dissection or endocarditis can result in an infarct. This diagnosis should also move up on the differential when patients have conditions like antiphospholipid syndrome or nephrotic syndrome that induce a hypercoagulable state.

This patient was admitted to medicine, and an etiology was not identified despite extensive workup. On initial CT angiogram, a "beading configuration of the right main renal artery suggestive of fibromuscular dysplasia" was noted, but follow-up renal ultrasound was negative for PVD. The patient was noted to have elevated triglycerides making an atherosclerotic embolic possibility most likely. Additionally, he had an elevated hematocrit and heparin injection suggestive of a polyethylene vascular syndrome which would make him hypercoagulable. A 2x2 mutation analysis was ordered, however it was thought that his history of smoking and possible sleep apnea could explain the finding as well. The patient was discharged with symptom resolution, but lost to follow-up.

References


Remarks

- In a patient with suspected nephrolithiasis and no stone identified on CT without contrast, consider repeating the CT with contrast to identify possible RI.
- Renal Infarcts present similarly to more common pathology. Consider additional risk factors for infarct when developing differentials.

Disclaimer

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