Response to Reviewers

Author Contribution Statement

Microbes, Infection and Chemotherapy requires that all authors take public responsibility for the content of the work submitted for review. The contributions of all authors must be described in the following manner:

The authors confirm contribution to the paper as follows: Study conception and design: Zeina Kanafani; data collection: Zeina Kanafani, Suha Kalash; Analysis and interpretation of results: Zeina Kanafani, Suha Kalash; draft manuscript preparation: Zeina Kanafani, Suha Kalash. All authors reviewed the results and approved the final version of the manuscript. All authors agreed to be responsible for all aspects of the work to ensure the accuracy and integrity of the published manuscript.

Reviewer A

-The microbiologic diagnosis of Burkholderia cepacia complex can be challenging depending on which modality is being utilized to identify the organism. Authors, please discuss this important topic.

Our organism was identified using Matrix Assisted Laser Desorption/Ionization–Time of Flight (MALDI–TOF) mass spectrometry.

We added the following:
The organism was identified using the MALDI–TOF which has been shown to have 100% sensitivity in identifying Bcc at the genus level. However, in one study 23.1% of Bcc isolates tested were not correctly identified at the species level. An alternative molecular testing for diagnosis would be a PCR based assay with a sensitivity of 96% and specificity of 100%. On the other hand, phenotypic methods of microbial identification often lack sensitivity and are rarely relied on for diagnosis.

-Aratara A Nutcharoen et al. presented an unusual case of severe pain originating from the coccyx radiating to the buttock and lower back with the inability to bear weight after an uncomplicated cesarean section performed under spinal anesthesia. Please, cite this case and summarize cases of sacroiliitis following cesarean section as potential cause of osteomyelitis.
Nutcharoen AA, Salih AA, Volio A, Skolaris A, Ayad S. Suspected Septic Sacroiliitis Following Recent Cesarean Section Under Spinal Anesthesia. Cureus. 2020 Jun 28;12(6):e8891. doi: 10.7759/cureus.8891. PMID: 32742858; PMCID: PMC7388811.

We reported on the above-mentioned case summarizing several cases of sacroiliitis.

We added the following:
Septic sacroiliitis can also occur during pregnancy and if left untreated, can lead to osteomyelitis. In a retrospective study between 1995 and 2011, 5 out of 39 patients with septic sacroiliitis were post-partum with infection occurring on average 9 days after delivery. Nutcharoen et al. presented a 30-year-old female with septic sacroiliitis 9 days after an uncomplicated C-section under spinal anesthesia. The initial source of infection

was suspected to be a gluteal cleft dermal piercing that was forcibly removed prior to symptoms.

-A review of the literature showed some papers reporting cases of osteomyelitis in pregnancy not included in your review, such as the following:

Gamble K, Dardarian TS, Finstein J, Fox E, Sehdev H, Randall TC. Osteomyelitis of the pubic symphysis in pregnancy. Obstet Gynecol. 2006;107:477–481. doi: 10.1097/01.AOG.0000199146.42113.0b.

Lawford AM, Scott K, Lust K. A case of massive vulvar oedema due to septic pubic symphysitis complicating pregnancy. Aust N Z J Obstet Gynaecol. 2010;50(6):576–577. doi: 10.1111/j.1479-828X.2010.01227.x.

-Osteomyelitis of the pubic symphysis after vaginal delivery has been also reported and you need to report them:
Cosma S, Borella F, Carosso A, Ingala A, Fassio F, Robba T, Maina A, Bertero L, Benedetto C. Osteomyelitis of the pubic symphysis caused by methicillin-resistant Staphylococcus aureus after vaginal delivery: a case report and literature review. BMC Infect Dis. 2019 Nov 8;19(1):952. doi: 10.1186/s12879-019-4595-x. PMID: 31703612; PMCID: PMC6842141.

These Authors reported the first case of methicillin-resistant Staphylococcus aureus osteomyelitis of the pubic symphysis occurring after the delivery and conducted a literature search regarding documented cases reports of osteomyelitis of the pubic symphysis in peri/post-partum. Please, include this topic in your discussion and table.

We did not include these cases in the table as the table summarized the published literature on Burkholderia cepacia vertebral osteomyelitis only.

We added the following:
Osteomyelitis in the peri-postpartum period has been reported in literature. Cosma et al reported on a patient who developed pain over the pubic area hours after vaginal delivery and was eventually diagnosed with osteomyelitis of the pubic symphysis caused by methicillin-resistant Staphylococcus aureus. The authors reviewed 8 other similar cases of osteomyelitis of the pubic symphysis without identifying any particular risk factors. Causative organisms included Staphylococcus aureus and Pseudomonas aeruginosa but not BCC. One case of S. aureus pubic symphysitis was associated with maternal sepsis, a 5 cm collection surrounding the symphysis pubis with extension into the soft tissue and required emergent C-section. Post-partum OM involving the femoral heads and tibia have also been described.

-Kulkarni et al. suggested that 99mTc-methylene diphosphonate planar triple-phase bone scintigraphy along with a SPECT-CT scan forms an integral part of the diagnostic workup in a case of postpartum low back pain associated with fever, by planning a CT-guided biopsy to accurately localize the site of biopsy. Authors, please discuss the diagnostic item of post-partum osteomyelitis

Kulkarni P, Elangoven IM, Jaykanth A, Simon S. Incremental Value of Three-Phase Bone Scintigraphy and Single-Photon Emission Computed Tomography-Computed Tomography in a Case of Postpartum PUO in the Wake of The Antibiotic-Resistance Era. Indian J Nucl Med.

2021 Jan-Mar;36(1):62-65. doi: 10.4103/ijnm.IJNM_168_20. Epub 2021 Mar 4. PMID: 34040301; PMCID: PMC8130677

We added the following:
In our patient, vertebral osteomyelitis was first recognized on MRI. Kulkarni et al reported the use of bone scintigraphy along with SPECT-CT scan as initial imaging modalities to investigate postpartum low back pain associated with fever with a subsequent MRI. The authors stated that this modality would help to establish a differential diagnosis and confirm the presence of polyarthritis and help localize the initial pathology. MRI remains the imaging modality with greatest sensitivity for diagnosis of osteomyelitis; however, if not feasible alternative appropriate tests are available.