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SCIENTIFIC LETTER

Burkholderia multivorans Sepsis Outbreak in a Neonatal Surgical Unit of a Tertiary Care Hospital

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To the Editor: In February 2020, a gram-negative nonfermenting bacteria, *Burkholderia multivorans* were isolated from the blood cultures of four patients who developed persistent fever postsurgery in the pediatric surgical ward of our tertiary care hospital. All isolates showed the same antimicrobial susceptibility pattern. An environmental surveillance was conducted to look for a potential source. An open vial of ultrasonography (USG) jelly showed growth of *Burkholderia multivorans* and an unopened vial grew *Burkholderia cenocepacia*. Clonal relatedness among the clinical and environmental isolates was analyzed by matrix-assisted laser desorption ionization time-of-flight mass spectrometry (MALDI-TOF MS) (Bruker Daltonik GmbH, Bremen, Germany) and by multilocus sequence typing (MLST). The sequencing of seven housekeeping genes (*glt*B, *lep*A, *gyr*B, *atp*D, *rec*A, *pha*C, and *trp*B) identified it as *B. pseudomultivorans*. All clinical isolates belonged to ST1071 and the isolate from the opened jelly belonged to ST536.

Burkholderia multivorans, a member of the *Burkholderia cepacia* complex (BCC) is increasingly being recognized as an important cause of neonatal sepsis [1–3]. They are intrinsically resistant to many antibiotics and disinfectants and frequently contaminate USG gel as it degrades the parabens used as stabilizing agents for the gel [4]. In the present outbreak, the unopened USG jelly had grown another *Burkholderia* species, *B. cenocepacia*. It is, therefore, possible that the jelly used for the patients was also contaminated with *Burkholderia multivorans* but had been discarded before the date of surveillance.

In surgical units, contaminated ultrasound gel can be a potential source for healthcare-associated infection where open wounds and drains may be a conduit. Ideally, single-dose sterile USG jelly should strictly be used in neonates and critically ill pediatric patients. This report highlights the role of proper surveillance of outbreak and emphasizes the need to formulate policies to prevent nosocomial infections through contaminated USG jelly.

Declarations

Conflict of Interest None.

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