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Abstract: **Background:** The OXA-163 is a carbapenemase recently identified in Argentina and Egypt, with weaker activity against carbapenems than OXA-48 but greater activity against expanded-spectrum cephalosporins (ESC). Here we aimed to describe a reinfection case with a novel variant of OXA-163. **Methods:** A 15-year-old female with acute lymphoid leukemia underwent a decolonization treatment with penicillin and colistin as part of a bone marrow transplant (BMT) protocol and developed febrile syndrome and sinusitis. The patient received colistin, amikacin, meropenem, linezolid and antimycotic agents. A positive Klebsiella pneumoniae (M11969) blood culture was recovered 4 days after BMT. A month later, after a second BMT, febrile syndrome (SF) develops again and a second K. pneumoniae (M13056) with different susceptibility profile than M11969 was recovered. Due to carbapenem resistance both isolates were referred to the National Reference Laboratory (INEI) for their characterization. Modified Hodge Test (MHT) was performed by standard procedures. Detection of resistance genes was done by PCR and DNA sequencing. Clonal relation was evaluated by XbaI PFGE. MICs were determined by Etest and interpreted according to CLSI. Conjugation was performed into azide resistant Escherichia coli J53. Plasmid incompatibility groups were determined by PCR-based-replycon typing (PBRT). **Results:** PFGE showed 1 band of difference indicating the same clonal type. M11969 had $bla_{\text{OXA-163}}$ and M13056 a new variant with two amino acid substitutions (Y211S, D212N). Both genes were transferred by conjugation. PBRT analysis in transconjugant strains were non typeable. MICs were as follows (μg/ml): **Conclusions:** Here we report the emergence of a novel variant of blaOXA with marginal activity against ESC. It was detected in a transferable plasmid from a patient previously infected with OXA-163.

	M11969 (OXA-163)	M13056 (new variant)	TC-11969 (OXA-163)	TC-13056 (new variant)	J53
Imipenem	2	12	0.38	0.5	0.38
Meropenem	12	6	0.06	0.03	0.023
Ceftazidime	>256	4	>256	1	0.19
MHT	+	+	+	+	-