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Spread of the *qnrVC* Quinolone Resistance Determinant in *Vibrio cholerae*

We read with great interest the recently published paper by Kim et al. (3) that reported a new *qnr* gene cassette, *qnrVC3*, inserted in the mobile integrative conjugative element SXT, found in *Vibrio cholerae*. *qnrVC3* presented 99% identity to the first described *qnr* gene cassette (*qnrVC1*) found in a *V. cholerae* strain (VC627) from Brazil, reported by us (2). After publication of the *qnrVC3* sequence, we verified that the submitted *qnrVC1* sequence, in fact, did not contain the mismatches that raised the amino acid changes compared to the *qnrVC3* sequence. We immediately performed an update, and the real sequence is under the same GenBank accession number, EU436855. Therefore, we concluded that *qnrVC1* and *qnrVC3* are identical since they share 100% identity at the amino acid level and presented only a unique synonymous mutation in the nucleotide sequence. Moreover, taking into account that a gene cassette is characterized by a particular *attC* site (4), the presence of the same *attC* site, which is a *V. cholerae* repeat (VCR)-like site from superintegrons, together with the same 5′ untranscribed region (5′UTR) (including the putative promoter) (2), confirmed that *qnrVC1* and *qnrVC3* are in fact the same gene cassette.

The genetic contexts of *qnrVC* tissue (2, 3) indicate the dynamics of mobilization and the evolution of this gene cassette. First, it was found in a typical class 1 integron (2). Kim et al. (3) verified this cassette in an integrated conjugative element (ICE) embedded in the chromosome. Comparing the two results, it can be concluded that this high mobility increases the chance of *qnrVC* spread, not only among *V. cholerae* strains. These results together also support the functionality of the *attC* sites in being recognized by IntI1, present in the genetic context of both *qnrVC1* and *qnrVC3* (2, 3), since this enzyme efficiently catalyzes *attI* × VCR recombination (1).

In conclusion, the results presented by Kim et al. reinforced the importance of *qnrVC* as a quinolone resistance determinant and its mobilization ability resulting in the spread of this resistance trait with such an impact on public health.

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