

P0467 Comparison of incidence of aortic aneurysm/dissection between hospitalised community-acquired pneumonia patients receiving either fluoroquinolone or ceftriaxone/azithromycin therapy

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Background: There are emerging reports of aortic aneurysm/dissection (AAD) events among fluoroquinolone (FQ) recipients although comparative data are lacking. This study sought to compare the incidence of AAD among hospitalized adult patient with community-acquired pneumonia (CAP) who received FQ or ceftriaxone/azithromycin (CTX/AZM) therapy.

Materials/methods: A retrospective cohort study was conducted among patients in the Upstate New York Veterans' Healthcare Administration System. Inclusion criteria: (1) age ≥ 18 years; (2) diagnosis of CAP from 1/2011 to 12/2016; (3) hospitalized; and (4) received FQ or CTX/AZM on hospital day 1 for ≥ 24 hours. For patients with multiple CAP episodes, the first CAP was only considered. Occurrence of AAD was defined using a natural word search algorithm of patients' clinical progress notes 90 days post-initiation of FQ or CTX/AZM therapy. Word search terms: aneurysm, dissection and regurgitation of aorta/aortic valve.

Results: During study period, 2094 pts met study criteria: 1038 received FQ and 1-56 received CTX/AZM. Moxifloxacin (55.6%) was the most commonly used FQ, followed by levofloxacin (36.7%) and ciprofloxacin (7.7%). Average (SD) age was 74 ± 13 years and 98% were male. Demographics, comorbidities, and other baseline features were similar between treatment groups. Incidence of an AAD event (aneurysm/dissection/regurgitation) occurred in 27/1038 (2.6%) and 31/1056 (2.9%) in FQ and CTX/AZM groups, respectively. The occurrence of individual AAD events did not differ between FQ and CTX/AZM pts: aneurysm (1.0% vs 0.8%, $p=0.61$), dissection (0 events total) and regurgitation (1.6% vs 2.2%, $p=0.37$). All AAD events occurred after a median (IQR) of 11 (4–31) days since starting therapy. In the multivariable analyses, FQ use was not associated with composite AAD (hazard ratio: 1.17, 95% confidence interval: 0.68 – 2.01, $p=0.57$).

Conclusions: In this large, retrospective, multi-center cohort study, the incidence of AAD did not vary between hospitalized CAP patients who received FQ or CTX/AZM.