Mortality of Paclitaxel Patients in an Australian Vascular Surgical Center

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Objectives: A recent meta-analysis has suggested a significant dose-related increase in mortality following the use of paclitaxel-coated balloons in infrainguinal endovascular procedures. We aim to review mortality outcomes of paclitaxel-naïve (PN) and paclitaxel-treated (PT) infra-inguinal peripheral arterial disease (PAD) patients treated by a single Australian vascular surgical unit.

Methods: Patient, procedure and mortality data was sourced and verified from AVA, as well as medical records from local public and private hospitals and clinics. Mortality data was cross-referenced with the Ryerson Index. Patients were only included if they underwent infra-inguinal PAD treatment. Renal failure patients were excluded, as their paclitaxel exposure could not be confirmed.

Results: 1060 patients were treated between March 2012 and December 2018. 269 patients received paclitaxel over 512 procedures. 791 patients remained paclitaxel-naïve over 1161 procedures. There was no significant difference in age, sex or co-morbidities between groups. There were more claudicants in the PT group (64.0% vs 54.7%, P=0.008). Over 70% of PT patients occurred during the last 3 years, resulting in significantly shorter median follow-up (14.2 months vs 22.9 months, P<0.01). There was a significant difference in mortality at 12 months favouring the PT group (5.1% vs. 9.5%, P=0.026). This trend continued at 24 (15.3% vs 17.9%, P=0.16) and 36 months (19.2% vs 25.2%, P=0.096) but did not reach significance. At 5 years, mortality was slightly higher in the PT group (40.4% vs 38.2%, P=0.31).

Conclusions: Patients in our experience are older and have poorer survival compared to those in the Katsanos meta-analysis. Unfortunately our study is limited by the temporal distribution of paclitaxel cases, reducing the possible follow-up period. Despite this, there is no significant difference in medium-to-long term survival between patients receiving paclitaxel and those remaining paclitaxel naïve.

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