

P-121 - Mild Thrombocytopenia Associated with Nxstage Hdd Treatment: A Report Of 2 Cases and Retrospective Analysis from 4 Belgian Dialysis Centers

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OBJECTIVES

To report our experience with the occurrence of mild thrombocytopenia with NxStage System One, the efficacy of the “flush and dump” technique in normalizing the BP count and to retrospectively estimate the risk of occurrence of this complication in a sample of Belgian HHD patients.

METHODS

We studied 4 local patients where the flush and dump technique was implemented after they experienced thrombocytopenia ($BP < 150 \times 10^3/\mu l$) linked to NxStage. Retrospective data from 37 patients who started with NxStage between 2012 and 2023 from 4 Belgian dialysis centers were also analyzed. We recorded their characteristics (age, gender, date of beginning of NxStage therapy) and BP count at four times from before the start up to two months.

RESULTS

We report 2 cases where thrombocytopenia occurred after the start of NxStage. After we excluded all usual causes of thrombocytopenia and reviewed the literature suggesting a possible association with the bioincompatibility and sterilization method of the NxStage dialyzers, we followed the “flush and dump” technique. In both patients, BP count normalized rapidly. We further started the same technique with 2 new thrombocytopenic patients who started more recently with the same success. Our retrospective analysis of the 37 patients showed a mean BP drop of 24,7% after the start of NxStage. We observed three patterns: BP count drop $< 25\%$ ($n = 16$), BP count drop $> 25\%$ with spontaneous recovery within 2 months ($n = 11$) and BP count drop $> 25\%$ without spontaneous recovery ($n = 10$). In those last 10 patients, the BP drop at two months was 39%.

CONCLUSION

58% of the patients on NxStage experience a fall in BP count of more than 25% after the start, half of those patients experiencing a spontaneous recovery. There were no difference in basic characteristics between groups of patients. Advanced characteristics were not available for analysis, leaving confounding factors influencing BP count out of our report. When implementing an additional flushing of the filter and the tubing with the “flush and dump” technique, BP count rapidly normalized in 4 patients. Further analysis are needed to identify the mechanisms and the underlying cause of the thrombocytopenia. Although our patients didn’t experience life threatening levels of thrombocytopenia, sharing our experience and the effectiveness of the “flush and dump” technique might be useful for future similar cases.