Poster

[P27-5] P27-5: Cardiovascular drugs (2)

Chair: David A. Joyce, Australia

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[P27-5-5] Switching from febuxostat to topiroxostat: efficacy, tolerability and serum concentration in hemodialysis patients

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Background

Topiroxostat is a novel xanthine oxidase inhibitor. In our hospital, serum uric acid (UA) levels showed a tendency to increase after 6 months in hemodialysis (HD) patients who had been receiving febuxostat 10 mg/day. We considered switching therapy from febuxostat 10 mg/day to topiroxostat 40 mg/day. However, no study has examined the effects of switching from febuxostat to topiroxostat therapy in HD patients. Therefore, this study sought to evaluate the efficacy, tolerability, and serum concentration of topiroxostat in HD patients after switching from febuxostat.

Methods

We conducted this 16-month prospective observational study of HD patients who had been receiving febuxostat at a dose of 10 mg/day for over 1 year. Serum UA levels, other laboratory data, and serum topiroxostat concentration were assessed.

Results

Ten HD patients were included in this study. Tolerability index showed no statistically significant difference at baseline versus at 16 months after the switch to topiroxostat therapy. Average serum UA levels tended to be lower at 6 months (4.9 ±0.5 mg/dL) than at baseline (5.6 ±1.7 mg/dL). Also, the number of patients who achieved serum UA levels of <6 mg/dL tended to be higher at 6 months (100%) than at baseline (60%). Moreover, in patients with baseline serum UA levels of >6 mg/dL, serum UA levels at 6 (5.1 ±0.4 mg/dL) and 16 (6.1 ±0.5 mg/dL) months were significantly reduced compared with baseline (7.4 ±0.5 mg/dL). Minimum serum topiroxostat concentrations were lower than the limit of quantification (< 25 ng/mL).

Conclusions

In HD patients, switching from febuxostat 10 mg/day to topiroxostat 40 mg/day might reduce serum UA levels with no changes in other clinical laboratory data over the long term. Furthermore, these effects were appeared to be stronger in patients who had high serum UA levels. Also, topiroxostat therapy had cost benefits compared with febuxostat therapy. Topiroxostat therapy might be a better option for HD patients with high serum UA levels after administration of febuxostat 10 mg/day.