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THE EFFECTIVENESS AND SAFETY OF REPEATED ORAL IBUPROFEN TREATMENT IN PREMATURES WITH PATENT DUCTUS ARTERIOSUS

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Although patent ductus arteriosus (PDA) leading to significant hemodynamic changes in premature babies can be cured by medical or surgical methods, debate is ongoing about the selection of the treatment method, and there is still no consensus about the benefit-side effect relation.

The aim of this study was to determine the effectiveness of enteral ibuprofen on PDA closure and its adverse effects in premature with hemodynamically significant PDA. All infants had hemodynamically significant PDA determined clinically and echocardiographically (left atrial/aorta (LA/Ao) ratio >1.3 or the narrowest diameter of the PDA shunt on color Doppler echocardiography >1.5 mm). The first dose of ibuprofen is administered, and then two consecutive doses of 5 mg/kg are given after 24-hour intervals. If the treatment is unsuccessful, the 2nd and 3rd cure treatments are administered if the laboratory and clinical status of the patients are deemed suitable.

The rate of PDA closure with enteral ibuprofen treatment was determined as 88%. The rate was 71% after 1st cure, 40% after the 2nd course and 35% after the 3rd course. Among patients in whom the PDA closed after the 1st cure, the bronchopulmonary dysplasia (BPD) frequency was 26.9%; this rate was 48.1% among patients in whom PDA closed after multiple courses.

In conclusion, enteral ibuprofen, as a readily available and easily applicable agent, is effective and safe, with minimal side effects. In case of treatment failure, earlier surgical ligation should be kept in mind to prevent the complications that can occur due to prolonged ductal patency.