종설

유증상 미숙아 동맥관 개존증의 진단 및 치료전략

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Strategy of diagnosis and treatment for hemodynamically significant patent ductus arteriosus in preterm infants

(Hemodynamically significant patent ductus arteriosus in preterm infants)

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접수: 2013 년 6 월 7 일, 수정: 2013 년 6 월 23 일, 승인: 2013 년 6 월 24 일

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Patent ductus arteriosus (PDA) is a major morbidity in preterm infants, especially in extremely premature infants less than 28 weeks. Early diagnosis of hemodynamically significant PDA (hs-PDA) is not easy because the symptoms of PDA in preterm infants are non-specific. Echocardiography is a good diagnostic tool for early detection of PDA. Clinical investigation has been continued to establish a criteria for selecting an infant who needs early targeted treatment of PDA by echocardiography. The biomarkers such as brain natriuretic peptide (BNP) and N-terminal pro-BNP (NTpBNP) are currently under research as a diagnostic and prognostic marker of PDA. Cyclooxygenase (COX) inhibitor is the treatment of choice and highly effective for PDA closure in preterm infants. Oral ibuprofen is emerging as a better alternative because it is as effective as indomethacin with fewer side effects. PDA ligation is a treatment option for hs-PDA when medical treatment is failed. There is lack of long term benefits of such treatments to induce ductal closure. Thus, it is prudent to treat an infant with clinically significant PDA on the basis of gestational age, birth weight, clinical status, and echocardiographic findings. Better diagnostic tools to identify infants who might benefit from ductal closure are needed.

**Key Words**: Patent ductus arteriosus, Preterm, Management, Ibuprofen