

심초음파 단독 검사로 시행한 단순 심실중격결손증의 영아기 수술

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Guided by EchocardiographyKyeong Eun Kim, MD¹, Jae-Young Choi, MD¹, Jong Kyun Lee¹, Young Min Eun, MD¹,
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ABSTRACT

Background : Echocardiographic examination is universally considered as an established method for the diagnosis of congenital heart disease, and as a result of many technological advancements in information processing, its utility is being emphasized much more. Cardiac catheterization, by comparison, is usually performed in the past for the purpose of diagnosis and preoperative assessment of infants with isolated ventricular septal defect (VSD), and the risks and complications of cardiac catheterization have been more frequent in the younger ages. Accordingly, we present in this study the effectiveness and safety of echocardiography on the diagnosis and treatment of infants who met the indications of early correction and underwent operations. **Methods :** Between May 1994 and April 1997, 66 infants with isolated VSD were submitted for primary correction in the Yonsei Cardiovascular Center. Among the 66 infants (36 males and 30 females), 33 (group 1) underwent surgery on the basis of echocardiography alone and another 33 (group 2), on the basis of cardiac catheterization in addition to echocardiography. The two groups were compared for the diagnostic sensitivity, specificity, complication after surgical correction and frequency of reoperation. **Results :** 1) The average age was 5.4 ± 3.3 months in group 1 and 5.7 ± 2.2 months in group 2. 2) There was no significant difference between the two groups in terms of the sensitivity and specificity of diagnostic tools. 3) There was no post-operative death in either group and no significant difference in postoperative hospital stay between the two groups. 4) There was no significant difference between the two groups in complications such as sepsis, pneumonia after surgical correction. **Conclusion :** We concluded that after an accurate selection, most infants with isolated VSD can safely undergo primary repair on the basis of echocardiography alone. (*Korean Circulation J* 1998;28(10):1767-1773)

KEY WORDS : Ventricular septal defect · Echocardiography · Cardiac catheterization · Infancy.

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7 ± 6.6 vs 10.8 ± 4.4)(Table 3).
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6.2 ± 1.0 kg
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21 (64%) 23 (70%)

Table 1. Comparison of the clinical parameters at surgery

Parameter	Group 1	Group 2	p-value
Age (months)*	5.4 ± 3.3	5.7 ± 2.2	NS
Range	1 - 11	2 - 12	
Median age (months)	4	6	
Weight (kg)*	6.0 ± 1.6	6.2 ± 1.0	NS
Range	(2.8 - 8.5)	(3.9 - 9.3)	
Median weight(kg)	5.7	6.3	

*mean ± SD NS : not significant

Table 2. Type of VSD confirmed at operation

Type of VSD	Group 1	Group 2
Perimembranous	21	23
Subpulmonic	10	8
AV canal type	0	0
Muscular	0	1*
Perimembranous + Subpulmonic [†]	2	1

Abbreviation : AV canal ; atrioventricular canal

*Associated with separate subpulmonic VSD

[†] Pre-operative diagnosis were perimembranous type

Table 3. Comparison of diagnostic and surgical results

Parameter	Group 1	Group 2
Specificity	100%	100%
Sensitivity	94%*	97% [†]
Early reintervention	0	0
Late reintervention [‡]	1	1
Mortality	0	0
Postoperative hospital stay (days) [§]	11.7 ± 6.6	10.8 ± 4.4

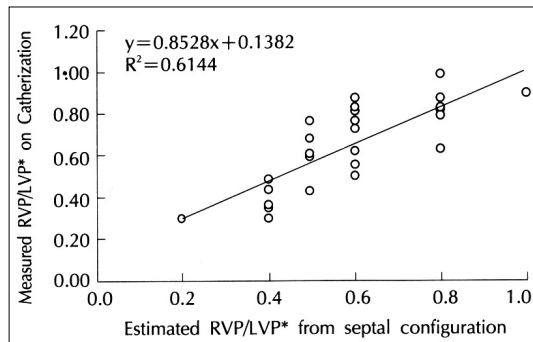
*One case was associated with PDA and another 1 case was diagnosed as the subpulmonic VSD but at operation field the VSD was extended to the perimembranous portion.

[†] : One case was diagnosed as the subpulmonic VSD but at operation field the VSD was extended to the perimembranous portion.

[‡] : Mitral valve replacement was performed due to persistent mitral regurgitation after initial mitral valvuloplasty.

[§] : mean ± SD

Complication	Group 1	Group 2
Respiratory tract infection	4	6
Sepsis	1	0
UTI	1	0
Wound infection	1	2
Total	7 (21%)	8 (24%)



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중심 단어 :

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